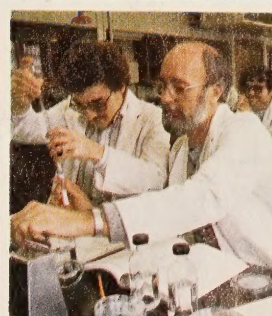
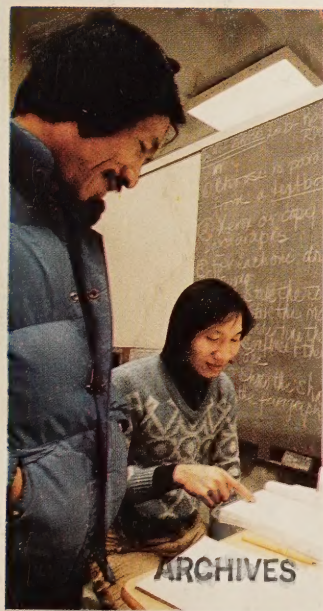




Bröome Community College

1985 - 1986 Catalog



ACCREDITATION

Broome Community College is a member of the Middle States Association of Colleges and Schools.

The College is supervised by the State University of New York and its curriculums are registered by the State Education Department.

The Civil, Chemical, Electrical and Mechanical Engineering Technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc., (ABET).

The Dental Hygiene program is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the United States Department of Education, and the Nursing curriculum is accredited by the National League for Nursing.

The Committee on Allied Health Education and Accreditation (CAHEA) of the American Medical Association (AMA) has accredited four other curriculums—Radiologic Technology, Medical Record Technology, Medical Laboratory Technology, and Medical Assistant, which is also accredited by the American Association of Medical Assistants.

The Medical Record Technology program has double accreditation, too, having been approved by the American Medical Record Association as well as by AMA. The Medical Laboratory Technology curriculum also has approval by the National Accrediting Agency for Clinical Laboratory Science (NAACLS) in conjunction with AMA. The Dietary Manager program is approved by the Dietary Managers Association.

NON-DISCRIMINATION COMMITMENT

Broome Community College does not discriminate on the basis of race, sex, color, creed, age, national origin, disability, marital status or status as a disabled veteran or veteran of the Vietnam era in the recruitment of students, the recruitment and employment of faculty and staff, or the operation of any of its programs and activities, as specified by Federal and State laws and regulations.

The designated coordinator for compliance with Title VI and VII of the Civil Rights Act of 1964, as amended, Title IX of Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, as amended, and Section 402 of the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, is the Affirmative Action/Equal Opportunity Officer.

For further information or questions, contact this individual weekdays, during regular college hours.

THE COLLEGE PHONE NUMBER IS (607) 771-5000.

The College reserves the right at any time to make changes deemed advisable or necessary. The College, moreover, shall not be responsible for any typographical or editorial errors contained in this catalog.

For information about the College, its programs, and its admissions procedure contact:

Office of Admissions
Broome Community College
P.O. Box 1017
Binghamton, New York 13902
Phone (607) 771-5001

Hearing Impaired persons should phone (607) 771-5210 (Voice-TDD/TTY).

Broome Community College

Binghamton, N.Y. 13902

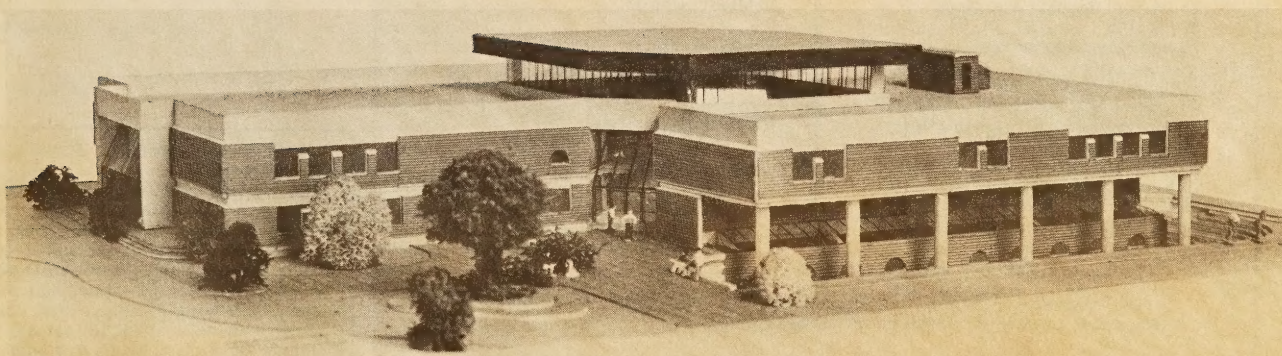
1985 - 1986 Catalog

A Comprehensive Community College

Supervised by SUNY

(State University of New York) and

Sponsored by the County of Broome



This working model shows what the new Applied Technology Building, now under construction, will look like when it is completed next year.

45 COLLEGE PROGRAMS OF STUDY

DEGREE-GRANTING CURRICULUMS IN 29 FIELDS OF STUDY

Business and Office Technologies

- 1-Accounting
- * 2-Business Administration
- 3-Management
- 4-Marketing
- 5-Executive Secretary
- 6-Word Processing
- 7-Office Services Assistant

Technology, Engineering and Computing

- 8-Chemical Engineering Technology
- 9-Civil Engineering Technology
- 10-Electrical Engineering Technology
- 11-Mechanical Engineering
Technology
- 12-Industrial Technology
- * 13-Engineering Science
- * 14-Computer Science
- 15-Data Processing
- 16-Computer Technology
- 17-Tool and Die Making

Health Sciences

- 18-Dental Hygiene
- 19-Medical Assistant
- 20-Medical Laboratory Technology
- 21-Medical Record Technology
- 22-Nursing
- 23-Radiologic Technology

Liberal and General Studies

- * 24-Liberal Arts (Associate in Arts and
Associate in Science degrees)
- 25-Child Care
- 26-Criminal Justice-Police
- 27-Fire Protection Technology
- 28-Individual Studies
- 29-Paralegal Assistant

CERTIFICATE PROGRAMS IN 16 FIELDS OF STUDY

These programs generally consist of half the number of credits in an associate degree curriculum and are, therefore, the equivalent of one year of college study. Most are given in the evening.

Business with emphasis in:

- 1-Accounting
- 2-Management
- 3-Marketing—Sales and Retailing

4-Child Care

5-Criminal Justice

6-Dietary Manager

7-Fire Protection Technology

8-General Office

Industrial Technology with emphases in:

- 9-Chemical
- 10-Electrical
- 11-Mechanical
- 12-Production Management

13-Interior Design

14-Liberal Arts

15-Machinist Related Instruction

16-Paralegal Assistant

Unless otherwise indicated, degree programs are occupational in nature and designed to prepare graduates for immediate employment.

- * These programs are designed to prepare graduates for transfer to four-year colleges and universities in the third, or junior, year.

2 NEW CURRICULUMS ARE PLANNED

The College has prepared two new curriculums—one in Travel and Tourism and one in Communications and Media Arts. Official approval from the State University of New York (SUNY) and the State Education Department was awaited when this catalog was prepared. It could be received in time to offer Travel and Tourism in the fall of 1985. The earliest that the Communications and Media Arts would be offered is the Spring 1986 Semester. For information, contact the Admissions Office.

HOW TO USE THIS CATALOG

To help readers find their way through the pages of this catalog, a few words of explanation may be helpful. The catalog is assembled in essentially five parts, as follows:

PART 1, which consists of pages 1 to 33, contains the policies, procedures and regulations of the College. And as the accompanying table of contents shows, these are divided into such areas as admissions, financial aid, expenses, academic affairs and student affairs.

PART 2, which runs from pages 34 to 61, is a rundown of the College's programs and curriculums, arranged in alphabetical order. It shows the courses taken by students in each semester, along with the number of class hours, laboratory hours and credits for each. A summary of the field for which each curriculum prepares its graduates is also included.

PART 3, from pages 62 to 71, is directed to part-time students. It has im-

portant academic information for them including a presentation of the programs of study for them for degrees and certificates. It also includes information about the College's Center for Community Education and its non-credit offerings (page 71).

PART 4, covering pages 72 to 120, carries the descriptions of the college's courses. These are arranged in alphabetical order, according to subject matter, starting with Accounting and other business courses.

PART 5, which appears on pages 121 to 132, is essentially the listing of the administration and faculty of the College. There is also information about the State University of New York, of which the College is a part.

Attention is also directed to the **INDEX** on pages 133 to 135. This is an alphabetical listing of the topics covered in the catalog together with the page numbers where one can find them.

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COLLEGE MISSION AND GOALS STATEMENTS

Broome Community College is a public, comprehensive, two-year institution providing the following range of educational services to its students:

1. Arts and Science transfer degrees; 2. Occupational degree and certificate programs in allied health, business and engineering technology; 3. Developmental learning program; 4. Student and administrative services; and 5. Continuing education and community service activities and programs.

As an open enrollment institution, Broome Community College provides a quality, low-cost, geographically convenient program to the varied student populations in its service region.

GOALS

1. Access—Given Broome Community College's mission to provide access for Broome County's recent high school graduates and veterans, as well as many adults who are seeking a college education, either full- or part-time, the College offers a Full Opportunity admissions process.

2. Diversity—Given the comprehensive mission of the College, diverse academic and student development services are provided to a wide range of individuals.

3. Quality—Given the premise that the College program requires constant and thorough scrutiny by faculty and administration, evaluation processes are utilized, internally and externally, to preserve and improve upon their excellence.

4. Community—Given the emphasis to improve economic development and quality of life in the region, the College, in addition to its credit course offerings, has a commitment to provide businesses, industries and agencies with a variety of public service education and training programs and provide other educationally related services as required.

5. Resources—Given the need to sustain as well as improve the College's program and also keep pace with

the accelerating knowledge explosion in education, it becomes increasingly important to provide for necessary levels of physical, fiscal and human resources to obtain these results.

6. Governance—Given numerous internal and external governance processes or agencies which impact upon the College, input from these sources is appropriately utilized to formally and informally affect the College's mission and programs.

AUTHORIZATION

Broome County is the sponsor of Broome Community College, which was established in 1946 and is one of the oldest community colleges in the State University of New York (SUNY) system. The College is governed by a Board of Trustees and funded by annual appropriations (operational and capital) from state and county funds, and students pay up to one-third of the college's operating costs through tuition. Five of the trustees are appointed by the County Executive, with approval of the County Legislature, and four by the Governor. County and trustee governance policy and practice are based on a mutually determined modified "Plan C" resolution of County Government.

The College President is appointed by the College Board of Trustees, with approval of the Chancellor of the State University of New York and the SUNY Board of Trustees. His/her direct supervisor is the chairman of the College Board of Trustees. The SUNY Chancellor provides an umbrella type of leadership to the president through a deputy for community colleges to insure that appropriate SUNY policies and regulations and State Education Department (SED) guidelines for post-secondary institutions are followed.

Degree granting authority for Broome Community College is given by the Board of Regents of the University of the State of New York, and the College's academic program is accredited by the Middle States Association of Colleges and Schools.

DEFINITION

Since the date of charter in 1946, as the New York State Institute of Applied Arts and Sciences at Binghamton, the College has moved from a limited access technical institute to a comprehensive community college with a Full Opportunity enrollment policy. Broome Community College is organized into three primary divisions: academic, administrative, and student services, each of which is administered by a Vice President reporting to the College President.

The Board of Trustees establishes College policy, and the Administration interprets and implements it, working in conjunction with the Sponsor, State University of New York (SUNY), the State Education Department (SED), and the various accrediting bodies that evaluate and make recommendations on the objectives and outcomes of the college program.

Broome Community College emphasizes classroom and applied laboratory educational activities rather than being a research institution. By developing a quality program and excellence in teaching, the College provides diversified educational opportunities to individuals of varied ages. A particularly attractive feature of the College is that it draws most students from the geographic region known as Broome County. It provides an important link with the communities of Broome County and the surrounding regions in the Southern Tier of New York State, making social, economic and cultural contributions to recipients of these services.

The College provides students with a broad spectrum of both humanistic and scientific/technological related competencies through its 29 degree programs and its 16 certificate programs. The College is approved by the New York State Board of Regents to offer Associate in Arts (AA), Associate in Science (AS), Associate in Applied Science (AAS), and Associate in Occupational Studies (AOS) degrees.

Enrollment includes both full- and part-time students attending day and/or evening classes. Classes run from 8 a.m. to 10 p.m. weekdays, and there is a number of weekend classes.



Admissions

ADMISSIONS PROCEDURES

Students are selected as they apply, complete the admissions process, and are found suitably qualified for a particular program. The following items are required by the Admissions Office before a decision can be made on a student's application:

1. Application for admission.
2. A non-refundable \$10 application fee. (If the applicant is reapplying, seeking admittance into a part-time Early Admissions program, or is a qualified Educational Opportunity Program (EOP) applicant, then this fee does not have to be paid.)

If official transcripts are available for previous high school or college work, they should be sent to the Admissions Office to help in placing the student in the proper courses.

Here are a few items to note concerning the application process:

1. Students interested in any Health Science curriculum—full-time or part-time—must apply through the Admissions Office. Students who wish to enroll full-time in any of the College's other programs must also apply through the Admissions Office. Students interested in part-time study should contact the Office of Academic Advisement in Room 111 of Wales Building in other than Health Science programs.
2. American College Testing (ACT) or Scholastic Aptitude Test (SAT) score reports are not required, but if either or both are available they should be forwarded to the Admissions Office.
3. Recommendations from high school personnel are helpful, if available.
4. An interview with an Admissions Counselor at Broome Community College is desirable.

5. The postmark date of an application is an important part of the admissions criteria and helps the College implement its first-come, first-served equal opportunity policy.
6. Most programs require that prerequisite courses be successfully completed by June 30 of the summer preceding fall enrollment.

Applicants should recognize that it is their responsibility, not a counselor's or admissions officer's, to complete the necessary forms for admission and to see that all required transcripts and/or other information are received and recognized by the Admissions Office counselors. Completing the application process is the first step toward matriculation, which also includes being accepted into a curriculum and enrolling in coursework.

Acceptance into Broome Community College only applies to the particular semester designated in the acceptance letter. If one does not attend then and wishes to enroll in a future semester, then he/she must reapply. Records are kept on file for three years, so the reapplication process usually involves merely filling out another application form, unless additional college coursework has been completed.

More information or answers to questions are available at the

Admissions Office
Broome Community College
P.O. Box 1017, Binghamton, N.Y. 13902
Phone: (607) 771-5001

SPECIAL ADMISSIONS PROGRAMS

Early Admissions is a program for high achieving students who are in high school and can benefit from taking college-level courses, full or part-time, before graduating from high school. While high school seniors are usually enrolled in this program, qualified juniors and sophomores may also be eligible.

Anyone interested in part-time Early Admissions should contact the Admissions Office or his/her high school counselor for the special application form. Full-time applicants should use the regular new student application.

Educational Opportunity Program (EOP) is designed for students who are educationally and economically disadvantaged. It provides additional economic aid and remedial or developmental academic help. For more information, contact the Admissions office at BCC (Room 102 in the Wales Administration Building).

International Students (from other nations). Broome Community College is authorized under Federal Law to enroll non-immigrant alien students. For information, see page 27.

Non-High School Diploma applicants may qualify for a high school diploma by successfully completing 24 credit hours of coursework at BCC or any college in a degree or certificate program. Students currently in high school or those having been out of high school less than one year typically cannot qualify for this program. Additional information is available at the Admissions Office.

Transfer Credit for students who have taken or are taking college level coursework is subject to the approval of the chairperson of the student's academic department at BCC. Grades earned will not be entered into the cumulative grade-point average at Broome Community College. Students must in all cases submit to the College Admissions Office official transcripts of all college level work taken and/or being taken at another college before formal acceptance will be granted.

Students transferring courses to BCC will be required to complete in credit hours the equivalent of a semester's course of study at BCC for graduation. The determination of this minimum will be the responsibility of the department faculty sponsoring the curriculum, but in no case will the requirement be less than 12 semester credits.

FULL OPPORTUNITY PROGRAM

Broome Community College has a Full Opportunity Program, which is designed to give every individual a chance to fulfill his/her own personal goals and potential. This means that everyone who is a previous June graduate of a Broome County high school or a veteran from Broome County with a high school diploma is given priority for admission until March 1 and is guaranteed admission into the College, but not necessarily assured of space in the program of his/her choice. To be admitted into any program of study, all applicants must meet the academic requirements of that program. When an individual does not have the required academic background for a particular curriculum, he/she will be accepted into a program or selection of courses for which he/she is qualified if space is available. Some students may require more than two years to complete a program of study.

Admission to the College shall not be denied on the basis of age, disability, ethnic origin, nationality, political belief or affiliation, race, religion or sex.

A TDD/TTY TELEPHONE

A TDD/TTY telephone unit is available in the Admissions Office to make it accessible for the hearing impaired. The number is 771-5001. The College also has one in the Counseling and Student Development Center—771-5210.

TUITION DEPOSIT POLICY

Students admitted to the College prior to August 1 will be billed for a \$50 tuition deposit. This payment will be applied toward the Fall Semester tuition bill for those students who register. Students who do not register for the Fall Semester can obtain a refund of the tuition deposit, through the end of the first week of classes, by submitting a request in writing to the College Controller. At the end of the first week of classes, the tuition deposit is non-refundable.

HEALTH REQUIREMENTS FOR HEALTH PROGRAMS

A student's enrollment in one of the Health Science programs listed below is conditional upon passing a physical examination and obtaining appropriate immunizations when required. Students should contact the department chairpersons for specific information.

Dental Hygiene
Medical Assistant
Nursing
Medical Laboratory Technology
Medical Record Technology
Radiologic Technology

IN CHART ON NEXT PAGE...

ALL GRADES ARE FINAL CLASS AVERAGES AND NOT REGENT EXAM GRADES

*BCC has a developmental program that enables students lacking the proper academic preparation for degree-granting curriculums to enroll in appropriate credit or non-credit courses that will qualify them. They can take these courses at BCC or elsewhere during the summer preceding their enrollment. The College reserves the right, however, to consider for admission only those applicants who have completed all prerequisites by June 30. Applicants who elect to take these courses during the spring and fall semesters would need three years to complete the curriculum.

†In these programs, Broome Community College gives priority for admissions to Broome County residents who will graduate from high school this academic year or are service veterans. ...Students interested in a degree in the Health Science or Computer Studies curriculums who enter the College in another program are cautioned that there is no guarantee that a petition to transfer will be approved. They should discuss the possibilities with the appropriate department chairperson.

Curriculum	REQUIRED High School subjects	RECOMMENDED High School subjects
Business Accounting Management Marketing Bus. Admin.	Sequential Math I or equivalent for Accounting, Banking, Management 1 Year of Math for Marketing Sequential Math I, II, III or equivalent for Business Administration	2 units Mathematics 2 units Science College preparatory courses
* Chemical Engineering Technology	Regents Chemistry (Min. grade 74) Sequential Math I, II, III or equivalent	Additional Regents Math, Science and Chemistry courses Physics
* Civil Engineering Technology	Sequential Math I, II, III or equivalent Regents Physics (Min. grade 65) or General Physics (Min. grade 74)	Additional Mathematics Technical courses
† Computer Science	Sequential Math I, II, III or equivalent Precalculus Math or Advanced Algebra Min. grade 74, all courses	Additional Mathematics Science, Technical courses Computer Programming
† Computer Technology	Sequential Math I, II, III or equivalent Min. grade 74, all courses	Additional Mathematics Physics Computer Programming Typewriting
† Data Processing	Sequential Math I, II, III or equivalent. Int. Alg. may replace Seq. Math III. Min. grade 74, all courses	Additional Mathematics Computer Programming Typewriting
† Dental Hygiene	Sequential Math I, II or equivalent Biology (Regents or General) Chem. (Regents or General) Average grade 80 needed in these courses	Typewriting Science courses (Biology, Physics)
* Electrical Engineering Technology	Sequential Math I, II, III or equivalent (Min. grade 74) Regents Physics (Min. grade 65) or General Physics (Min. grade 74)	Additional Mathematics Technical courses
† *Engineering Science	Sequential Math I, II, III or equivalent Advanced Algebra and Precalculus Math Chem. (Regents or General) Regents Physics Min. grade 80, all courses except Chem. Min. 74	Additional Mathematics Science courses Technical courses Computer Programming

ACADEMIC PREPARATION FOR ADMISSIONS

Curriculum	REQUIRED High School subjects	RECOMMENDED High School subjects
Liberal Arts and Sciences	(Students should review degree/emphasis models on pages 50 and 51. These might help in selecting HS preparatory courses.)	3 units Mathematics 3 units Science 3 units Foreign Language 3 units Social Studies
* Mechanical Engineering Technology	Sequential Math I, II, III or equivalent (Min. grade 74) Regents Physics (Min. grade 65) or Gen. Physics (Min. grade 74)	Additional Mathematics Technical courses
† Medical Assistant	Sequential Math I or equivalent Biology (Regents or General) Chem. (Regents or General)	Additional Mathematics Science courses Typewriting
† Medical Laboratory Technology	Sequential Math I, II or equivalent Biology (Regents or General) Chem. (Regents or General)	Additional Mathematics Physics
† Medical Record Technology	Sequential Math I or equivalent Biology (Regents or General)	Additional Mathematics, Science, Chemistry, Typewriting
† Nursing	Sequential Math I or equivalent Biology (Regents or General) Chem. (Regents or General) Min. grade 74, above courses	College preparatory courses
† Radiologic Technology	Sequential Math I, II or equivalent Biology (Regents or General) Min. grade 74 for biology Another Science course	Additional Mathematics Physics (Regents or General) Chemistry (Regents or General)
Office Technologies Executive Secretarial Office Services	If the student does not have Sequential Math I, electives are limited.	2 units Typewriting, 2 Science 1 unit Communications or Business English
Word Processing	Sequential Math I or equivalent required for Word Processing	1 unit Math (not including General or Business Math) Sequential Math I or equivalent preferred

Financial Aid

ESTIMATING EXPENSES

Listed below are charts showing the estimated average costs for the 1985-86 college year for student expenses, determined by whether or not the student lives at home and is dependent on his/her parents. These cover a 9-month period which is the length of the college year—September to May.

Expense Charts

FOR DEPENDENT STUDENTS

	*Single Commuter (living home)	*Resident (living near campus)
†Tuition	\$ 950	\$ 950
Fees	63	63
Books	250	250
Transportation	400	500
Home Maintenance	1,100	NA
Personal Expenses	500	500
Room	NA	1,400
Board	NA	1,100
Total	\$3,263	\$4,803
Non-NY State Resident: (Additional tuition)	950	950
Total	\$4,213	\$5,753

FOR INDEPENDENT STUDENTS

	Single, Divorced, Widowed, Separated (no children)	Married, Head of Household one working or school (no children)	Married, Two working or school (no children)
†Tuition	\$ 950	\$ 950	\$ 950
Fees	63	63	63
Books	250	250	250
Rent	1,440	2,000	2,000
Food	1,100	1,436	1,650
Clothing		441	492
Transportation	500	600	740
Recreational & Personal	500	550	550
Total	\$4,803	\$6,290	\$6,695
Non-NY State Resident: (Additional tuition)	950	950	950
Total	\$5,753	\$7,240	\$7,645

†THE TUITION AMOUNT OF \$950 HAD NOT BEEN OFFICIALLY ADOPTED WHEN THIS CATALOG WAS BEING PREPARED. IT IS MOST LIKELY TO BE \$950, HOWEVER.

NOTES—

- *1) A commuter is a student who lives with his/her parents and commutes to school; a resident is an out-of-town student residing locally.
- 2) Allowances for additional expenses are made for students in certain academic programs. See page 12 under heading "Books, Supplies, Uniforms."
- 3) Medical, child care, debt repayment, and miscellaneous expenses may be allowed if the student is able to document the cost.
- 4) Child care allowance—up to \$1,200 for each dependent child.
- 5) Transportation line includes auto insurance, license plates, maintenance. An additional allowance may be allowed depending on distance traveled from home to the College.

—ALL COSTS ARE SUBJECT TO CHANGE—

Considerable financial aid is available at Broome Community College, and the College maintains a Financial Aid Office to help students. Information and applications for financial aid are sent to students who are seeking full-time enrollment when they apply for admission. Any part-time student planning to take six credit hours or more may qualify for financial aid by formally applying and being accepted into a degree or certificate program. Part-time students may receive information/applications by contacting the Student Financial Aid Office.

Financial aid at BCC falls into three broad categories—grants that do not have to be repaid, loans on which interest rates are usually low and that have to be repaid after graduation or leaving college, or part-time employment called Work-Study. Assistance usually comes from a combination of these resources commonly referred to as a "financial aid package."

STUDENT AND FAMILY RESOURCES

A student's financial need is a term used to describe the funds required by a student to pay for his/her college education in excess of the amount that he/she and parents can afford to pay. Financial need is determined by using a standardized formula, which defines the "initial" or "demonstrated" need. The formula:

Take the "Total educational costs" and subtract the "parental contribution and student's summer earnings." This amount is the initial or demonstrated need.

The Financial Aid Office at Broome Community College operates on the premise that all parents and students have a responsibility to contribute as much as they can toward the cost of the student's education. This contribution plays the primary role in determining the actual initial need.

To qualify for financial aid, a student must be enrolled in a degree program of the College and be taking six credit hours or more, in addition to having an initial or demonstrated need. This need can be met in a number of different ways—a combination of grants, loans and work-study funds in varying amounts of each. This combination is put together by the financial aid administrator and is called a "financial aid package."

Many students would be unable to attend college without financial aid. However, no matter when application for financial aid is made, disbursement of awarded money is not always made on an "as needed" basis. Therefore, every student should have sufficient resources available for living and educational expenses for several weeks into a semester.

HOW TO APPLY FOR FINANCIAL AID

To be considered for financial aid, students must apply each academic year.

Federal and State Gifts

All financial aid applicants will be expected to apply for two major sources of financial aid—the Federal government's Pell Grant and the State's Tuition Assistance Program Award (TAP). Although the College provides information, applications and assistance, these funds are not generated by the College and must be applied for directly by the student to the agency. Further information regarding these and other problems is available at the Financial Aid Office (Wales Building, Room 101).

College Administered Financial Aid

To be considered for financial aid administered by the College, parents of dependent students and self-supporting students must submit the Financial Aid Form (FAF) to the College Scholarship Service and the College Application for Financial Aid to the Financial Aid office. By filing the forms outlined above, students will be considered for the following financial aids, about which further information is available at the Financial Aid Office (Wales Building, Room 101):

Federal

- National Direct Student Loan
- College Work Study
- Supplemental Educational Opportunity Grant

Institutional

- BCC Foundation Grant

The college administers a number of programs which have been established by private individuals, companies, and organizations. These scholarship and grant programs have varying eligibility requirements. Students who wish to apply for these special scholarships may request an application from the Financial Aid Office.

Priority Funding Dates

Fall Semester.....April 30
Spring Semester.....December 1

Incoming students should apply for financial aid when they apply for admission. Because all college-based funds are limited, students are strongly encouraged to submit the appropriate forms at least eight weeks before the above priority dates.

Completed applications received prior to April 30 will be given first priority. Applications received after this date will be considered as long as funds are available.

FAF should be mailed to College Scholarship Service before February 1 to be received at the College by April 30.

Notification of Decisions

Students are generally notified of the action taken on their application shortly after April 30. Students who apply late will be notified as folders are completed. An explanation of students' rights and responsibilities is sent to all financial aid recipients at the time the award is made. Interested students may receive a copy of this information before an award is made by contacting the Financial Aid Office.

If a student's request for aid is denied, the reasons for the decision are explained. Students may request an appeal on financial aid decisions by writing a letter to the Vice-President for Student Affairs.

Satisfactory Academic Progress for TAP & Title IV Aid

Federal regulations require satisfactory academic progress before students may receive Title IV aid (Pell, NDSL, Work Study, SEOG, Guaranteed Student Loan). The college has also adopted New York State Tuition Assistance Program (TAP) guidelines which require good academic standing for students to continue receiving TAP. Contact the Registrar's Office in Room 206 of Wales Building for a copy of the guidelines.

Broome Community College does not defer SUMMER tuition based on a TAP Award.

Money Management Counseling

The Financial Aid Office offers a money management counseling service. Students having difficulty managing their funds can receive assistance in developing personal budgeting skills. Students should contact the Financial Aid Office for more information.

Room and Board

The cost of room and board for out-of-town students is dependent upon the demands of the students. The average cost varies from \$60 to \$70 per week.

PACKAGING POLICY

At Broome Community College the self-help concept of financial aid packaging is used. Eligible students are funded on a need basis and a first-come, first-served order.

The Pell Grant and the New York State Tuition Assistance Program (TAP) represent the floor of the package followed by any employment, loans and grants available.

This kind of financial aid packaging ensures that any student who wishes to attend a postsecondary institution will have the opportunity to obtain the needed funding.

An example of the self-help concept:

- (1) Total Student Costs (Budget)
- (2) Subtract Resources:
 - a) Parental Contribution
 - b) Student Summer Savings (\$700 or \$900)
 - c) Students Assets
 - d) Other Resources

Initial Financial Need

- (3) Subtract:
 - a) Tuition Assistance Program (TAP)
Grant or Estimate
 - b) Pell Grant
Unmet Need for Campus-Based Aid
- (4) Subtract:
 - a) Educational Opportunity Program (EOP)
 - b) National Direct Student Loan (NDSL)
 - c) College Work Study
 - d) Supplemental Educational Opportunity Grant (SEOG)
 - e) BCC—Grant in Aid
\$400 unmet need*

*Most students are able to satisfy their unmet need through the Guaranteed Student Loan Program. The amount of unmet need may vary from year to year.



RIGHTS AND RESPONSIBILITIES OF FINANCIAL AID RECIPIENTS

Student recipients of financial aid are the beneficiaries of money made available by a variety of agencies—federal, state, institutional, and/or private. The act of accepting a financial aid award signifies that the recipient knows about, understands, and is willing to comply with both the rights and the responsibilities involved with that award. Thus, it is the recipient's **RIGHT TO KNOW**:

- 1—What federal, state and institutional financial aid programs are available.
- 2—The deadlines for submitting application forms for each assistance program.
- 3—The cost of attending the College and the refund policy.
- 4—The criteria used by the College to select financial aid recipients and how the school determines financial need.
- 5—What resources (such as parental contribution) are considered in the calculation of financial need and how much of that need, as determined by the College, has been or will be met, and how (loan, grant and/or work-study).
- 6—How much of the financial aid will have to be repaid, and what portion is a grant (gift-aid). If the aid is a loan, the recipient should know what the interest rate is, the total amount that must be repaid, the payback procedures, the length of time allowed to repay the loan and when repayment is to begin.
- 7—How the College determines whether the student-recipient is making satisfactory progress and what

It is the recipient's **RESPONSIBILITY** to:

- 1—Know and understand fully the financial aid program and one's specific financial aid package before signing the forms.
- 2—Make sure that all application forms are completed accurately and submitted, on time, to the right place.
- 3—Pay special attention to and accurately complete the application for student financial aid. Errors can result in long delays in the receipt of financial aid. Intentional misreporting of information on application forms for federal financial aid is a violation of law and is considered a criminal offense subject to penalties under the U.S. Criminal Code.
- 4—Return any and all additional documentation, verification, correction, and/or new information requested by either the Financial Aid Officer or the agency to which the application is submitted.
- 5—Read and understand all forms that one signs and keeps copies of them.
- 6—Accept responsibility for all agreements signed.
- 7—Notify the lender of changes in name, address or school status, if one has a loan.
- 8—Perform the work that is agreed upon in accepting a College Work-Study award.
- 9—Know and comply with the deadlines for application and/or reapplication for aid.
- 10—Know and comply with the school's refund procedures.

GRANTS

NOTE—The following financial aid information is current as of spring 1985. Due to the nature of financial aid programs, some of this information may be changed during the academic year. Please contact the Financial Aid office for updated information.

ELIGIBILITY	AMOUNT PER YEAR	WHERE/HOW TO APPLY
Tuition Assistance Program (TAP)		
Full-time students at any accredited college in New York State. Resident of New York State. No academic requirement.	\$300 to \$2700, not to exceed tuition. Based on income.	New York State Higher Educational Services Corp. Tower Building Empire State Plaza Albany, N.Y. 12230 Forms available in BCC Financial Aid Office
Regents College Scholarship (Scholarships for nursing students and children of deceased or disabled veterans also available)		
Based on SAT or ACT test scores. For full-time students at any accredited college in New York State who are New York State residents.	Minimum of \$250. Depending on income and class level, a TAP award may also be received that could combine with the \$250 to equal the tuition charge.	New York State Higher Educational Services Corp. Tower Building Empire State Plaza Albany, N.Y. 12230
*Pell Grant Program		
Accepted or enrolled full-time or half-time students who demonstrate financial need.	From \$225 to \$1900. Cannot exceed one-half the cost of college expenses.	Forms available in BCC Financial Aid Office and in high school guidance counselor offices after Jan. 1.
*Supplemental Educational Opportunity Grant		
For full-time or half-time students with demonstrated high financial need. On first-come, first-served basis.	Up to \$2000 depending upon need and cost of college expenses.	Student must submit a Financial Aid Form and an Application for Financial Aid. Forms available in BCC Financial Aid Office and in high school guidance offices.
BCC Foundation Grant		
Full-time or part-time students with financial need.	Varies according to individual need.	Submit Financial Aid Form and an Application for Financial Aid. Forms available in BCC Financial Aid Office.
Educational Opportunity Program		
Full-time and part-time students with financial need and less than an 82 high school average. Family income must be below a specific level.	Varies according to individual need. Average of \$275 per student per academic year.	Application available in the Educational Opportunity Program Office at BCC in Library
Aid for Part-Time Study		
For those who have completed at least 6 credit hours and enroll for 6-11 credits. N.Y. State resident. Income and academic restrictions involved.	Up to full tuition.	Forms and further information available in BCC Financial Aid Office.

LOANS

ELIGIBILITY	AMOUNT PER YEAR	WHERE/HOW TO APPLY
*New York State Higher Education Services Corporation Loan		
For full-time or part-time students. Student borrows on own signature from a participating bank. If family income is greater than \$30,000 a year, student must show financial need.	Maximum of \$2,500 per academic year. No interest while in school. Repayment and 8% interest begin six months after leaving school. Up to 10 years to repay. Insurance premium of 1/2 of 1% and a 5% origination fee are deducted from borrowed amount.	Most banks in New York State or New York State Higher Education Services Corporation, 50 Wolf Road, Albany, N.Y. 12205. Forms available at local banks and credit unions.
*National Direct Student Loan		
For full-time or part-time students with financial need. Student borrows from the college on own signature. Awarded on a first-come, first-served basis.	Amount varies according to student's need. Total of \$6,000 for an undergraduate program, but no more than \$3,000 total for the first two years of college study. No interest while in school. Repayment at 5% interest begins six months after leaving school. Up to 10 years to repay.	Student must submit Financial Aid Form and an Application for Financial Aid. Forms available in BCC Financial Aid Office.
Parent Loan for Undergraduate Students (PLUS)		
Loan program for parents of dependent undergraduate students. Maximum \$3,000 per year per student. Total loan limit of \$15,000 per student. Repayment begins 60 days after disbursement. 12% interest rate, though interest can fluctuate.		
Pauline Parker Loan		
For full-time students who are Broome County residents, under 25 years of age, and in financial need.	\$1,000 maximum per year. No interest charge.	Forms available in BCC Financial Aid Office.
Emergency Loans		
For full-time or part-time students, through the support of the BCC Foundation. Available in emergency situations only.	\$150 maximum. No interest charge. Repayment in 30 days.	Forms available in BCC Financial Aid Office.
EMPLOYMENT		
*College Work-Study		
For full-time or part-time students with financial need. Awarded on a first-come, first-served basis.	Students may work up to 20 hours a week when classes are in session or up to 37 1/2 hours a week during vacations. Wage: Minimum.	Student must submit Financial Aid Form and an Application for Financial Aid. Forms available in BCC Financial Aid Office.

*Student and parents required to submit 1984 federal income tax return to Financial Aid Office for these programs.

TUITION

The tuition amount had not been officially established when this catalog was being prepared. It is most likely to be the amounts in this column.

Tuition and fees are payable at the Student Account Office according to a payment schedule released by the College for each semester. The responsibility for payment rests upon the student, who will be billed prior to the start of each semester. Both full-time and part-time students who have registered for courses will be "de-registered" if they fail to meet the established due dates for tuition/fee payment.

STUDENT CARRYING 12 OR MORE CREDIT OR CREDIT-EQUIVALENT HOURS —considered full-time students.

For New York State residents

With residency certificate.....\$475 per semester

Without residency certificate.....\$950 per semester

For out-of-state residents.....\$950 per semester

Students admitted to the College prior to August 1 will be billed for a \$50 tuition deposit. This payment will be applied toward the Fall Semester tuition bill for those students who register. Students who do not register for the Fall Semester can obtain a refund of the tuition deposit, through the end of the first week of classes, by submitting a request in writing to the College Controller. At the end of the first week of classes, the tuition deposit is non-refundable.

STUDENTS CARRYING FEWER THAN 12 CREDIT OR CREDIT-EQUIVALENT HOURS —considered part-time students.

For New York State residents }\$38 per credit or

With residency certificate }credit-equivalent hour

Without residency certificate }\$76 per credit or

For out-of-state residents. } credit equivalent hour

NOTE - See "credit equivalent" on page 21.

Many students may qualify for financial aid, some of which is applicable toward tuition. See **Financial Aid** section on pages 8 through 11.

SEE TUITION REFUND POLICY ON PAGE 13.

RESIDENCY CERTIFICATE

To qualify for the resident tuition fee, a student is required by law to present once each academic year on or before registration a residency certificate indicating that he or she has been a legal resident of the State of New York for one year and of a county for six months.

Broome County Residents—Full-time students admitted to the College will be mailed a copy of the application for residency certificate prior to registration. This application must be completed and presented at the time of tuition payment.

Out-of-County Residents—Full-time students admitted to the College will be mailed a copy of the application for residency certificate prior to registration. The application must be completed, notarized and presented to the **County Treasurer of the County in which the student resides**. The County Treasurer will then issue a residency certificate to the student. This residency certificate must be presented at the time of tuition payment.

Part-Time Students must meet the same requirements as stated above. The application for residency certificate form is available at the Student Account Office.

The completed residency forms are required once each academic year.

Failure to comply with this requirement will result in paying double tuition, not to exceed the limitations cited above.

Books, Supplies, Uniforms And Other Student Expenses

Students provide at their own expense the necessary books and instructional materials. These may be purchased at the College Book Store maintained by the Faculty-Student Association for the convenience of the students. The cost varies, depending on the curriculum, from about \$200 to \$400.

In the Health Science curriculums students will provide, at their own expense, their own transportation to off-campus locations for necessary clinical and other experience.

In addition, some curriculums require uniforms. Among these are Nursing, Radiologic Technology, Medical Laboratory Technology and Medical Assistant. Gym clothes are necessary for physical education classes. Dental instruments and pants-type uniforms are prescribed for Dental Hygiene students.

The following expenses are in addition to the usual cost of about \$250 per year for books and are included in financial aid allowance for students enrolled in these programs:

	Freshman	Senior
Chemical Technology.....	\$60	\$50
Civil Technology.....	77	20
Dental Hygiene.....	300	225
Electrical Technology.....	190	70
Engineering Science.....	95	50
Mechanical Technology.....	90	70
Medical Assistant.....	80	100
Nursing.....	170	100
Office Technologies.....	150	150
Radiologic Technology.....	215	125

College Fees

These fees could be somewhat different, as they had not been officially established when this catalog was being prepared.

Application Fee.....	\$10
Late Registration.....	10
Parking Registration.....	1
Transcript Fee.....	1
Returned Check Fee.....	10
Credit by Examination	
Non-Laboratory Course.....	25
Laboratory Course.....	Maximum 65
\$25 plus \$10 for each clock hour of lab examination (See page 15)	

Credit by Evaluation.....*50 plus (Portfolio Assessment)

*In addition to the \$50 fee, there is a charge of \$5 per credit hour. This \$5 is refundable if credit is not granted. The \$60 is non-refundable, however. (See page 15.)

Chemistry Laboratory Fee.....\$5 per semester
For all students taking chemistry laboratory courses with 200 numbers (\$5 per student)

Student Fees

STUDENT ACTIVITY

Full-Time Student.....	\$33 per semester
Part-Time Day Students.....	4 per semester
Part-Time Evening Student.....	1 per semester

The student activity fee had not been officially established when this catalog was being prepared. It is most likely to be these amounts.

The activity fee entitles full-time day students to admission to varsity games, convocations, dances and parties, as well as a subscription to the student newspaper and the opportunity to participate in a varied program of co-curricular activities, including intramural athletics.

The Student Activity Fee is budgeted and administered by the Student Government with the approval of the College Administration and in recent years has been apportioned to the following activities:

- Campus publications
 - Newspaper, Yearbook
- Program Board
 - Speakers, Performers, Dances, Movies, Picnics,
 - Special On and Off-Campus Programming
- Club Council
 - 27 funded clubs including most curriculum organizations
- Athletics
 - 13 male and female intercollegiate teams,
 - coaching stipends, intramurals, administrative expenses
- Student Government Association
 - Administrative expenses, vehicle maintenance,
 - class gift, audit, supplies

Part-time day students (those taking fewer than 12 credit or credit-equivalent hours) pay a \$4 student activity fee per semester. This entitles them to admission to convocations and social events and to issues of the Fulcrum, the student newspaper. It does not include, however, admission to varsity sports events or membership in student organizations or to copies of The Citadel, the student yearbook. The student has the option though of paying \$33 per semester and receiving the same privileges as full-time day students. **Part-time evening students** pay a \$1 student activity fee per semester.

SEE FEE REFUND POLICY IN COLUMNS 2 AND 3 ON THIS PAGE.

ACCIDENT INSURANCE, HEALTH SERVICE FEE

Full-Time Student Accident Insurance.....\$9 per year
Health Service Fee

Full-Time Students.....\$3 per semester
Part-Time Day Students.....\$1 per semester
(This is a compulsory fee and covers all services provided in the Health Service.)

Money collected from the Health Service fee is used for physician services, drugs, supplies, educational material, diagnostic equipment, special health programs and related Health Service expenses. The fee is non-refundable if the student withdraws from the College.

The accident policy covers the student for 12 months commencing the first day of classes for expenses incurred as a result of any accident, on or off campus. Maximum coverage is \$1,000 per accident. Claim forms are available in the Health Service during the year, and must be filed with the Health Service before expenses will be paid. Students who withdraw and wish a refund of their accident policy must apply directly to the insurance company.

International Student Health Insurance

International students must show that they have health insurance coverage before they may enroll at the College. They must either purchase their own health insurance or that which is available through the College

for \$201 per year. Claim forms are available in the Health Service during the year. Students who withdraw and wish a refund of their health insurance fee must apply directly to the insurance company. Note that the "Health Insurance" mentioned in this paragraph is different from the "Health Service Fee" in the first paragraph above.

MEDICAL INSURANCE

The College does not provide medical insurance, but it is available through a number of insurance companies including Blue Cross/Blue Shield. Other plans are available through insurance companies in the area.

GRADUATION/CERTIFICATE FEE

Graduation.....	\$18
Certificate (part-time evening only).....	8

Paid during semester preceding graduation and is refundable if the student does not graduate or earn certificate.

ALUMNI LIFETIME MEMBERSHIP.....\$25

Membership in the Broome Community College Alumni Association is optional. The lifetime dues are payable during the semester preceding graduation, and they entitle graduates to complete Association benefits.

Refund Policies, Procedures

TUITION REFUND POLICY Fall and Spring Semesters

Students who officially withdraw from classes during the first three weeks of a semester will be entitled to tuition refunds on the following basis—100% refund during the first week, 50% during the second week and 25% during the third week. After three weeks of classes there will be no refunds. See College Calendar on page 136 for additional information on dates for tuition refunds.

A change in this policy was being considered when this catalog was being prepared.

NOTE—Participants in the New York Civil Service Employees Association Labor Education Action Program (LEAP) will be subject to the tuition refund regulations specified in the LEAP guidelines.

Summer Session

Students who withdraw from Summer Session classes will be entitled to a 100% refund during the first week of the term. After that, there will be no refunds.

FEE REFUND POLICY

The student activity fee is refundable according to the same schedule as tuition. See "Tuition Refund Policy" above.

REFUND PROCEDURE

An application for refund of tuition and fees must be made in person and in writing in the Registrar's Office (W-206). The application must be on the College form provided. The date on which the application is filed is considered the official date of the student's withdrawal and any refund to which the student may be entitled is computed using that date.



Academic Affairs

REQUIREMENTS FOR GRADUATION

COMMON REQUIREMENTS FOR ALL FOUR DEGREES GRANTED BY THE COLLEGE

1. Successful completion of all courses for the degree as contained in this Catalog.
2. A 2.00 cumulative GRADE POINT AVERAGE in those courses applicable to the degree.
3. Recommended of the faculty for the awarding of the degree.
4. Satisfaction of all obligations to the College.

THE ASSOCIATION IN APPLIED SCIENCE DEGREE (AAS)

This degree is awarded to graduates of curriculums in these fields of study:

Accounting
Chemical Engineering Technology
Child Care
Civil Engineering Technology
Computer Technology
Criminal Justice—Police
Data Processing
Dental Hygiene
Electrical Engineering Technology
Executive Secretarial
Fire Protection Technology
Individual Studies

Industrial Technology
Management
Marketing
Mechanical Engineering Technology
Medical Assistant
Medical Laboratory Technology
*Medical Record Technology
Nursing
Office Services Assistant
Paralegal Assistant
*Radiologic Technology
Word Processing

5. Curriculum Requirements
 - a. The minimum number of credits in a student's major field as determined by each academic department. These are courses intrinsic to and required by the various curriculums.
 - b. A minimum of 20 credits in Liberal Arts and Sciences courses will include:
 - 1) Social Sciences: a minimum of 6 credits
 - 2) Natural and Physical Sciences (including mathematics): a minimum of 6 credits
 - 3) Humanities: a minimum of 6 credits in English (may include a maximum of 3 hours in speech)
 - c. Satisfactory completion of all courses in a curriculum or as approved in a department.
 - * d. Summer clinical experience required for graduation in curriculums noted.

THE ASSOCIATE IN SCIENCE DEGREE (AS)

This degree is awarded to graduates of the Business Administration, Computer Science, Engineering Science and Individual Studies curriculums and the Science Option in Liberal Arts and Sciences.

5. Curriculum requirements:
 - a. At least 30 credits in the humanities, natural sciences, mathematics, the social sciences.
 - b. Physical Education—2 credits (for Liberal Arts, Computer Science and Engineering Science students only).



THE ASSOCIATE IN ARTS DEGREE (AA)

This degree is awarded to graduates in the Liberal Arts and Sciences curriculum.

5. Liberal Arts and Sciences requirements distributed as follows:
 - a. English: a minimum of 12 credits, of which 6 shall be in composition and 6 in literature.
 - b. History: a minimum of 6 credits in approved courses.
 - c. Humanities: a minimum of 6 credits (6 in philosophy or 6 in a foreign language).
 - d. Mathematics: Students who have completed fewer than 3 units of secondary school mathematics (through 11th year math) are required to take two semesters of college level mathematics. . . Students who have completed 3 units of secondary school mathematics (through 11th year math) are required to take one semester of college level mathematics. . . Students who have completed more than 3 units of secondary school mathematics (including 11th year math) are not required to take additional mathematics. They may, however, elect an appropriate math course or an elective in another field.
 - e. Natural and Physical Sciences: a minimum of 8 credits.
 - f. Social Sciences: a minimum of 6 credits.
 - g. Electives: 16 credits minimum. A maximum of 16 credits may be taken outside the offerings in Liberal Arts and Sciences with the approval of the dean of the division.
 - h. Physical Education: 2 credits. Exceptions to this requirement may be made by the dean of Liberal Arts for valid reasons.
 - i. Satisfactory completion of all courses in a curriculum or as approved in a department.

THE ASSOCIATE IN OCCUPATIONAL STUDIES DEGREE (AOS)

This degree is awarded to graduates of the Tool and Die Making curriculum and requires a minimum of 64 semester credit hours.

5. There are no specific requirements to take particular numbers of credit in general education courses for the AOS degree.

CREDIT BY EVALUATION

Non-Traditional Study

Broome Community College acknowledges that it is necessary and worthwhile to provide methods for considering various non-traditional activities for credit. By documenting and demonstrating that learning has taken place through various prior experiences, students may be awarded academic credit. Various examinations may also be taken for credit.

The divisional dean is the initial contact point for students interested in obtaining more information about non-traditional study, examination programs, and their suitability for various student purposes. Students will be assisted in determining whether or not such study or examinations would be worth pursuing for their educational objectives. The appropriate academic department is responsible for integrating any credit achieved in this manner into the student's academic program.

Advanced Placement Examination (AP)

The College will recognize for credit the AP examinations of the College Entrance Examination Board. A score of three or above is acceptable for credit upon departmental approval. Laboratory courses may require additional lab work for full credit for a college course. Credit awarded will be handled as transfer credit.

College Proficiency Exams (CP)

The CP exams of the University of the State of New York will be recognized for credit upon approval by the appropriate department. Credit awarded will be handled as transfer credit.

Credit Level Examination Program (CLEP)

The College will recognize successful achievement at or above the 50th percentile on CLEP subject exams in accordance with SUNY and American Council of Education guidelines. Approval of credit for degree requirements or electives is determined by the appropriate department. Credit approval will be handled as transfer credit. Under certain circumstances, a department may accept general examination scores.

BCC Credit by Examination (CBE)

The College in many instances provides for full or part-time BCC students credit by examination for knowledge gained outside the traditional classroom situation. This is strictly for use at BCC; however, credit awarded will be handled as transfer credit. Guidelines for this procedure are available from the College's department chairpersons. There will be a fee charged for the exam. If a student receives an F grade after normal completion of a course, no credit by examination may be given in that subject.

Portfolio Assessment (Special Individual Assessment)

The College will evaluate for credit various types of learning acquired outside the usual classroom environment and a fee is required, based on credit hours requested. Particular criteria for awarding credit may be applied by an academic department. Approval of credit is the responsibility of the appropriate department. Students must identify what has been learned. Contact the divisional dean for additional information.

Special Assessment of Group Sponsored Learning

The College will evaluate for credit various types of learning acquired through participation in learning experiences or training provided by businesses, industry, unions, professional societies, governmental agencies or the military. Particular criteria for awarding credit may be applied by an academic department, and approval of credit is the responsibility of the department. Contact the divisional dean for additional information.

DEGREE PROGRAMS

Graduates of Broome Community College receive associate degrees, and the courses of study are organized into four divisions—Business and Office Technologies; Technology, Engineering and Computing; Health Sciences; Liberal and General Studies. Liberal Arts courses are included in all curriculums, as it is believed that students need more than technical competence to understand people and their daily working and personal inter-relationships.

Applicants to the College should consider carefully the type of program they wish to pursue, for the nature of the offerings makes it difficult to switch from one curriculum to another after commencing studies.

Technology, Engineering and Computing

In the area of technical education, the College offers 10 programs. One, Engineering Science is in effect the first two years of an engineering curriculum. Students who do satisfactory work in it should experience little difficulty in transferring to engineering colleges at the third-year level.

Four others are designed to train engineering technicians in the fields of Chemical Engineering Technology, Civil Engineering Technology, Electrical Engineering Technology and Mechanical Engineering Technology. Students in these programs are prepared for employment in various types of technical work immediately after graduation, although many students are successful in transferring to four-year colleges.

The Computer Studies Department offers three programs—Computer Science, Computer Technology and Data Processing. The Computer Science program is designed to prepare graduates for transfer to four-year colleges, while graduates of the other two are trained for immediate employment.

Other programs in the technical field offered by the College include Industrial Technology and Tool & Die Making.

Business and Office Technologies

The Business curriculums are designed primarily to prepare graduates for immediate employment in one of six fields—Accounting, Management, Marketing, Word Processing, Executive Secretarial and Office Services Assistant. In addition, there is a seventh option, Business Administration, that combines more university parallel preparation with a minimum of job-oriented

courses. This program is intended for the person who plans to continue his/her college education for a baccalaureate degree, even though he/she may want to work for a while before transferring to a four-year college.

It is possible to transfer from all programs. But because each student's transfer credits are evaluated by the four-year institution, the number of credits accepted can vary.

Liberal and General Studies

University parallel curriculums in Arts and Sciences and in Special Career Programs of an occupational nature are included in this division. Curriculums in Arts and Sciences prepare students for transfer to four-year colleges and universities. While the aim of liberal learning is to broaden human perspective and deepen understanding through the study of philosophy, history, literature and the arts, students who identify career/professional goals early can begin to develop appropriate academic concentrations. Liberal Arts and Sciences degree programs are also offered for those seeking immediate employment. Refer to the career models on pages 50 and 51 in this catalog.

The College offers, through its Special Career Programs Department, degree opportunities in five other academic areas—Child Care, Criminal Justice, Fire Protection Technology, Individual Studies and Paralegal Assistant. All lead to the Associate in Applied Science degree, and Individual Studies students may earn either that degree or the Associate in Science degree, depending on their program of study. All are conducted under the Special Career Programs Department, along with a Paralegal Assistant Certificate program.

Health Sciences

Opportunities for men and women interested in the health sciences field are provided in six areas—Dental Hygiene, Medical Assistant, Medical Laboratory Technology, Medical Record Technology, Nursing and Radiologic Technology. Graduates are prepared to work immediately after graduation in physicians' or dentists' offices, laboratories or hospitals. Graduates of these programs are also qualified to take whatever licensing examination their professions require. The college also offers a Dietary Manager Certificate program for those working in the field.

CERTIFICATE PROGRAMS

Broome Community College also has certificate programs which are less than two years in length, have more specific objectives than the associate degree offerings, and consist of about one year of college credit. Some are designed to prepare students for jobs that require specialized higher education, but not necessarily a college degree; some provide students with an opportunity to upgrade their academic backgrounds or expand their qualifications for a particular field of study; and some offer college credits and additional training to people already working in the field.

Most of the certificate offerings carry college credits, and they can lead a person into some of Broome Community College's degree-granting curriculums. They can be taken on a full-time or part-time basis, and most of them are offered in the evening although some are available through day classes. No specific high school courses are required for enrollment.

Further details, a listing of courses, and literature about most of these certificate programs are available in Room 111 of the Wales Building.

Certificate Programs

Business Emphases

- Accounting
- Management
- Marketing/Sales/Retailing

Child Care

Criminal Justice

Dietary Manager

Fire Protection Technology

General Office

Industrial Technology Emphases

- Chemical
- Electrical
- Mechanical
- Production Management

Interior Design

Liberal Arts

Machinist Related Instruction

Paralegal Assistant

INTERNATIONAL STUDIES PROGRAMS

JANUARY & SUMMER SHORT PROGRAMS

Broome Community College is a founding member of the College Consortium for International Studies, a group of 90 colleges spreading geographically from Canada to Florida and from California to Maryland. This consortium, during the 1984-85 academic year, offered students about 65 overseas academic programs in 27 foreign locations.

The programs range from structured, formal courses at affiliated schools and institutions abroad, to service-learning and contract-independent study courses. Students may choose from short-term programs in January and during the summer to longer term, semester and year-long programs.

SEMESTER PROGRAMS

BCC provides formal, structured programs lasting for a semester, a year or two years, in England, Denmark, Scotland, Germany, France, Ireland, Israel, Italy, Mexico, Greece, Spain and Switzerland. Students study a full semester program (usually 15 to 18 credits) that is arranged prior to their departure at affiliated schools, institutions, colleges or universities abroad.

The subject areas range from liberal arts courses to specialized programs, such as criminal justice, languages and human services. Costs of these programs vary greatly, with the emphasis on high quality programs at public institutions. The costs approximate those at U.S. public colleges. For the 1984-85 year, the cost of a full semester in the popular program in England was about \$2,600. This includes full room and board, all tuition costs, round trip air transportation, and many extras.

Many BCC students will find their academic and personal lives enriched through a cultural experience difficult to match in a conventional two-year course of study in this country. BCC maintains close communication with consortium offices in New York, London and Jerusalem to facilitate the placement of students in qualified institutions abroad.

ADMISSION TO PROGRAMS

Admission to the College does not automatically insure admission to BCC's programs overseas; separate application must be made to the consortium. Students will be evaluated on their academic ability, motivation, maturity and potential adaptability to a foreign culture. In addition to BCC approval, interviews with personnel from affiliate consortium institutions may be required. All programs are available to students from any college or the general public. At least one-half of the participants last year were community residents who went on short-term programs on a non-credit basis.

During each academic year BCC conducts a wide variety of short-term programs in January and in the summer months. Students at BCC who have been introduced to study abroad through these short-term programs, usually two to three weeks in length, often decide to study overseas for a semester or year.

The short-term courses have grown in scope, as well as in number. During recent intersessions, courses have been in London in Theater, Real Estate, Criminal Justice Seminar, Nursing Seminar, Social Welfare Seminar, Psychology Seminar. Students were also able to study Italian Culture and Art in Italy and Tropical Field Ecology in the Virgin Islands. Costs for these programs last year started at \$789 for the London courses. A full list of the January offerings is usually available by November.

The summer programs vary in length from two weeks

to two months. Recent offerings have included Music and Art in Vienna, Antiquities of Ireland, Italian Culture and Language, History and Culture of Spain and North Africa, Discover China, and Anthropology Field School in Mexico. Costs in the summer programs are somewhat higher than those in January due to higher airline costs.

During the summer, there are special month-long programs at the University of Madrid for Spanish students and the University of Caen for French students. The cost of these programs was \$1,995 each for 1984, but most students are able to qualify for scholarships under a special grant from the Spanish or French governments. Similar programs are expected to be offered in Italy and Germany this year. A full list of courses being offered during the summer is usually available in March.

CREDITS, TRANSCRIPTS AND TUITION

Students register at BCC and pay the appropriate tuition, which in many cases covers the instructional costs abroad. Students are monitored through consortium offices at the college they attend. Upon the successful completion of the formal program or after fulfillment of the contract, students will receive a BCC transcript reflecting the grades achieved or the course equivalents or the work done through the contract, greatly facilitating transfer of credits to other American institutions.

Full-time students registering for courses that are scheduled other than in the Fall or Spring Semesters will be charged at the *part-time tuition rate*. Sessions other than fall and spring semesters will be called Summer Session and Intersession. Students earning credits in Summer Session and Intersession courses may earn up to 18 credits in the fall or spring semesters or up to 21 credits with permission of the appropriate dean and department chairperson.

Students who wish to earn more than six hours during any of the Summer Session terms or the Intersession are required to obtain the approval of the appropriate dean and department chairperson. The refund policy is not in effect for students taking courses in intersession.

Grades received for all courses taken from the beginning of the Fall Semester through the end of that semester will be considered first semester grades. Grades received for all courses taken from the end of the first semester through the end of the second semester (even if taken in January or abroad) will be recorded as second semester grades.

Summer Session is treated like a third semester. Its dates begin after the Second Semester Master Schedule of courses is complete through the beginning of the fall semester (grades for all Summer Session terms under the transcript heading, Summer Session).

All credits earned are Broome Community College credits, which allows students to use their financial aid packages for semester length programs.

Students may earn up to 18 credits per semester, leading to an associate degree. Credits for intersession/short-term programs range from one to six, depending on the time spent abroad and the instruction offered in the program.

For additional details about any of the above programs, students should contact the International Studies Program Office at Broome Community College in Titcheener Hall (Phone 771-5021).

Broome Community College has direct transfer agreements with a number of four-year colleges to facilitate the acceptance of BCC graduates into the third year of study. The number of colleges with which BCC has such agreements is increasing each year. Further details are available in the Counseling and Student Development Center (Wales Building, Room 200).

With SUNY Binghamton Transfer Agreement

All Broome Community College students who have graduated or who will graduate with an AA or AS degree with a grade point average of at least 3.0 will be admitted, upon application, as matriculated students in Harpur College of SUNY at Binghamton. Those students graduating with the above degrees but with a grade point average between 2.6 and 3.0 are usually admitted. Others, including those with an AAS degree, should contact the SUNY at Binghamton Office of Admissions. Admitted students will be granted junior-year standing upon presentation of 56 or more transferable credits.

Cross-Registration

BCC students may cross-register at SUNY Binghamton for one course each semester. The courses for which they cross-register must be courses that are not available at Broome Community College. No additional tuition is necessary. Additional information is available in the Registrar's office in the Wales Building, Room 206.

Joint Degree

The joint-degree program enables students in SUNY at Binghamton's Bachelor of Arts degree program to simultaneously earn an Associate in Applied Science degree at BCC.

Additional information on these programs is available in The Registrar's Office (Wales Building, Room 206).

With Keystone Junior College

BCC students may also cross-register at Keystone Junior College in LaPlume, Pa. for one course each semester. The courses for which they cross-register must be ones that are not available at Broome Community College, and they can take them without paying additional tuition. Additional information is available in the Registrar's Office (Wales Building, Room 206).

COOPERATIVE PROGRAMS WITH OTHER COLLEGES

With College of Environmental Science and Forestry (SUNY)

Pre-Environmental Science and Forestry

This program is designed for those students who ultimately desire a B.S. degree in the environmental Science and Forestry (ESF), which is an upper division/graduate center.

After the first two years of study at Broome Community College, transfers to ESF may apply to a variety of programs at Syracuse which include the **biological sciences** (botany and forest pathology, entomology, zoology, wildlife biology, silvics, pest management); **chemistry** (natural and synthetic polymers, biochemistry and natural products, environmental); **forest engineering, paper science and engineering; wood products engineering; and forestry** (resource management, forest resource science, management science, environmental education and communications, urban forestry, world forestry, applied resource management). The program in **landscape architecture** leads to a B.S. degree in environmental studies and, after one additional year, a Bachelor of Landscape Architecture degree.

Persons planning to transfer should follow the program requirements in consultation with BCC's Pre-Environmental Science and Forestry campus advisor for selection of electives which vary according to the curriculum at ESF.

Successful graduates of Broome Community College's Pre-Environmental Science and Forestry Program generally gain admission to the SUNY College of Environmental Science and Forestry with full junior class status.

Contact the Liberal Arts Office in Titchener Hall, Room 108.

Guaranteed Transfer Program with State University of New York

Students who graduate from Broome Community College with Associate in Arts or Associate in Science degrees are guaranteed admission, at the third-year level, to a four-year college of the State University of New York. This guarantee has some limitations, and details are available in the Counseling and Student Development Center (Wales Building, Room 200).

One-Plus-One Programs

Broome Community College has One-Plus-One Programs with other two-year colleges to enable a student to attend BCC for one year and then transfer to the other college for the second year for the Associate in Applied Science degree. This program permits students to begin studying at BCC for a degree in a field not offered at this College. By taking the BCC courses that one needs for the particular degree involved, residents of Broome County can enjoy the advantage of living at home during one year of their college attendance. Students taking these One-Plus-One Programs are liberal arts students at Broome Community College because most of the courses they take at BCC are liberal arts courses.

Listed below are colleges which offer transfer opportunities for students who have completed the appropriate one year of study at Broome Community College. Check with the Liberal Arts Office for more information about these programs.

Delhi Agricultural and Technical College

General Agriculture
Animal Husbandry-Dairy

Paul Smith's College

Hotel and Restaurant Program



Two-Plus-Two Programs

In addition to the one-plus-one programs, Broome Community College also has cooperative arrangements with four-year colleges. These cooperative arrangements allow students to take the first two years of a four-year degree at Broome Community College and then complete studies for the baccalaureate degree at the particular four-year college, usually in two additional years.

Colleges listed below have cooperative arrangements with Broome Community College in the areas of study indicated. Contact the Admissions Office at Broome, the appropriate department chairperson, and/or the transfer counselor in the Counseling and Student Development Center for specific information on course requirements. In addition, many of the four-year colleges require specific grade point averages to be eligible for transfer.

College of St. Rose

All AA, AS degrees

Cornell University (College of Human Ecology)

Nutritional Sciences
Human Development and Family Studies
Human Service Studies/Social Work Option
Consumer Economics and Housing
Design and Environmental Analysis

Fairleigh Dickinson University

AAS Degree in Civil, Electrical, Mechanical
Engineering Technology

Hofstra University

Full transfer for all AA and AS in Liberal Arts,
Business Administration and Engineering Science

LeMoyne College

Any baccalaureate degree program with AA or AS in
Liberal Arts and Sciences, Business Administration,
Engineering Science

Marist College

Parallel programs in Business (Marketing,
Management) Accounting, Engineering Technology,
(Civil, Electrical, Industrial and Mechanical)

St. John Fisher College

AA, AS degree programs, Liberal Arts and Sciences,
Business Administration, Engineering Science

Rochester Institute of Technology

AA, AS, AAS degree

SUNY College at Brockport

Business Administration, Criminal Justice, Liberal
Arts and LA Mental Health Emphasis degrees will be
accepted in Brockport's Recreation and Leisure
degree program

SUNY College at Cortland

Elementary Education, Computer Science

SUNY College at Fredonia

AA degree into Business Administration or Liberal
Arts or Radio and Television. AS degree into Math,
Physics.

AAS in Child Care into Early Childhood Education.

SUNY College at Oneonta

AAS in Accounting, Marketing, Management, Data
Processing, and AS in Computer Science

SUNY College at Oswego

Business Administration

SUNY College at Plattsburgh

Any associate degree that leads to a baccalaureate
program

SUNY College at Purchase

AA, AS degree programs in Liberal Arts and
Sciences

SUNY College of Technology (Utica)

AAS in Business, Electrical and Mechanical
Engineering Technology, Industrial Technology,
Nursing.

AS in Computer Science, Engineering Science,
Liberal Arts.

AA in Liberal Arts.

Syracuse University

School of Management

Trinity College

AA, AS or AAS degrees, concentrates on Liberal
Arts, Sciences, Business Administration,
Engineering Science

SUNY Upstate Medical Center

Cytotechnology, Medical Technology, Physical
Therapy

Utica College of Syracuse University

AA, AS graduates in following concentrations—
Liberal Arts and Sciences, Business Administration,
Engineering Science

Waynesburg College

Associate degree graduates accepted, transfer credit
determined on individual basis

Wilkes College

Accounting, Business Administration, Computer
Science, Liberal Arts, Nursing

Roger Williams College

Associate degree graduates accepted, transfer credit
determined on individual basis

GRADING INFORMATION

Because this grading policy went into effect for the Fall Semester of 1979, grades earned by students at the College prior to that date will remain as recorded.

Honor Points		
Grades	Credit Hour Per	Explanation
A	4	Outstanding achievement of course objectives
B	3	Significant achievement
C	2	Satisfactory achievement
D	1	Minimal satisfactory achievement
F	0	Failure to meet course objectives or dropped after 10th week
S	—	Satisfactory (certain courses)
U	—	Unsatisfactory (certain courses)
W	—	Withdrawal from a course between the 4th and 10th weeks inclusive (See "W" Grade below)
I	—	Incomplete due to special circumstances (See "I" Grade next column)
IP	—	'In Progress'— for courses in which student is permitted more than one semester to complete
AU	—	Audit—not to be recorded as a grade (See "Audit" next column)
T	—	Transfer credit from an accredited college

"S," "U" and "IP" Grades

The S or U grade and IP grade will apply only to specific courses determined by the appropriate departments and approved by the Vice-President for Academic Affairs. Such courses will not affect the Grade Point Average (GPA).

"W" Grade

It is the student's responsibility to initiate action to receive a grade of W between the 4th and 10th weeks inclusive. If no action is taken before the 11th week and the course is dropped, an F (or U) will be entered on the transcript. For 7½ week courses, an F (or U) will be entered on the transcript if the course is dropped after the 5th week. For 5-week modules an F (or U) will be entered on the transcript if the module is dropped after the 17th class. Students who withdraw from a class may not continue to attend that class.

"I" Incomplete Grade

A student who receives an I grade shall, within two weeks after the last class of that semester, contact his or her instructor to arrange for completion of unfinished work, in accordance with agreed upon time limits that are not to exceed one year. The instructor will then notify the registrar of the arrangements and, after the student has completed the work, of the subsequent grade to be assigned. If the student does not meet the time limit, the instructor shall direct the registrar to record the appropriate grade.

If the student does not contact the instructor during the two-week period at the end of the semester, the registrar shall record the appropriate grade as directed by the instructor.

Audit

The term "Audit" shall not be considered a grade but an "opportunity." For persons auditing a course, the letters AU will appear next to the course name on the transcript with a message statement explaining the meaning of the designation. No grade shall appear in the grade column on the transcript.

Students are encouraged to use the option of taking courses on an audit basis. Any student who completes a course by auditing will have AU recorded on his/her record in place of credit grades. He/she may not receive credit for it later, unless he/she re-registers in the course or challenges it according to the existing rules for credit-by-examination.

Students who register in a course for audit are expected to have the necessary prerequisites: In this respect students are encouraged to make full use of the College's counseling services, but the ultimate decision whether or not to enroll for audit shall be the student's responsibility. Consideration may be given to a student's request for transfer from credit to audit status or vice-versa. The end of the third week of classes is the deadline for such transfer.

Full-time students may audit courses with no additional charge, but they need approval of their department chairperson. **For part-time students**, the regular tuition schedule applies (see page 12). New York State residents who are **60 years of age or older** may audit courses without charge on a space available basis.

Mid-Term Grades

Only the D, I, F and U grades will be reported to students and their advisers at mid-term.

Repeating Courses

If a course is repeated, the higher grade will enter the grade point average. If a required course is failed, the department or the dean may allow the student to substitute an equivalent or similar course, rather than repeat the failed course. In such cases the higher grade will enter the grade point average.

Grade Point Average

Each grade carries a specified number of honor points—4 for an A, 3 for a B, 2 for a C, 1 for a D. To determine one's grade point average, multiply the number of honor points earned, according to the letter grade, by the number of credits for the course. Add these together and divide the sum by the total number of credits taken.

For purposes of graduation eligibility, only those courses required for the degree will be included in the calculation of the grade point average (GPA).

The GPA is fixed as of graduation and any courses taken after that will not change the graduation GPA and will not be entered into the previous GPA in any way. Cumulative GPA will reflect all courses that are not starred on the transcript.

President's List and Dean's List

Full-time students who have a semester grade point average of 3.80 or better will be named to the President's List. Such students must successfully complete a minimum of 12 credit hours. Courses which use the S or U or credit equivalent grade may not be among the 12 hours.

Full-time students who have a semester grade point average between 3.50 and 3.79 inclusive will be named to the Dean's List. Such students must successfully complete a minimum of 12 credit hours. Courses which use the S or U or credit equivalent grade may not be among the 12 hours.

Part-time students can earn a place on the President's or Dean's Lists by having the appropriate cumulative grade point average for their most recent semesters that include at least 12 credit hours. Courses which use the S or U credit equivalent grade may not be among the 12 hours. It is suggested that part-time students notify the Public Relations Office if they have the appropriate grades.

Graduation with High Honors or Honors

Students who graduate with a cumulative grade point average of 3.80 or better will receive the distinction of graduating with "High Honors" and those who graduate with a cumulative grade point average between 3.50 and 3.79 inclusive will graduate "with Honors."

POLICY OF STANDARDS FOR ACADEMIC PROGRESS

Credit Equivalent

Some courses at Broome Community College carry "credit equivalents." This means that they do not give a student credit toward a degree at the College, but they are equivalent to the appropriate number of credits for one's academic load. This credit load is used, to cite some examples, for determining a student's status as full-time or part-time, for financial aid, for billing, and for academic standing. Four courses carry three equivalent credits for the 1985-86 college year—ENG 090 Basic Language Skills, MAT 003 Basic Mathematics Review, RDG 090 Reading Fundamentals, RDG 100 College Reading.

Credit equivalent courses will be shown on official college lists with "0" or "3" depending on whether the list is showing credits, as on a master schedule, or credit equivalents, as on a student's schedule or bill.

Retention

The college has begun a study to determine how many of its students eventually graduate either from Broome or other colleges to which they transfer.

Early indications show that the number of students completing academic programs at Broome is steadily rising. In recent years, the graduation rate is estimated to have exceeded 50%, covering all programs. In some fields, especially the engineering technologies, the graduation rate appears to be greater, reaching as high as 65% to 75% of the entering class.

Another survey of students receiving financial aid was completed in the spring 1984 and indicates even more positive outcomes, with 65% of students graduating from all programs.

In order to be in good academic standing and to be making academic progress toward a degree or certificate, a student must meet a minimum cumulative grade point average and successfully accumulate credits according to the following standards:

1) GRADE POINT AVERAGE

Credits Attempted	Minimum Cumulative GPA
0-20	1.50
21-40	1.75
41-upward	2.00

2) SUCCESSFUL ACCUMULATION OF CREDITS

Students must successfully pass ("D" grade or better) a total number of credits according to the following standard:

Credits Attempted	Credits Completed
20	12
40	24
60	36
80	48
100	60

By the time a student has attempted 20 credits, he/she must have successfully completed 12 credits. Likewise, 40 credits trigger the 24 credit minimum requirement.

Probation

Student's records will be reviewed at the end of each semester. Students who have not met the minimum standards will be placed on probation. A student will have one semester to achieve the minimum standards before facing dismissal. During this probationary time, the student is expected to follow a probation contract outlined with his/her adviser, department chairperson or division dean.

Dismissal from the College

If a students does not meet the minimum standards during the probationary semester, the student will be dismissed from the College after the probationary semester.

If a student achieves a 2.00 semester grade point average and satisfies the accumulation of credits requirement while on probation, but fails to meet the required minimum cumulative GPA, he/she will be given an additional semester of probation. Probation will continue as long as the student continues to achieve a semester grade point average of at least 2.00.

DISMISSAL REVIEW: Verified medical, psychological or personal reasons directly contributing to the student's academic failure may be considered by the divisional dean for a waiver of dismissal. In addition, the dean may waive dismissal at his/her discretion based on recent dramatic improvements in performance which still leave a student with cumulative credit or GPA deficiencies.

REVIEW BASED ON SUMMER ENROLLMENT: Students are encouraged to take summer courses to improve their academic standing for the fall semester. Any student who enrolls in summer courses may request the dean or department chairperson of his/her program to review his/her probation or dismissal status prior to the start of the fall semester. The student must obtain documentation of his or her summer grades prior to this review.

READMISSION: To be eligible for readmission as a full-time matriculated student, the student must take two courses (5 to 9 credits and/or credit equivalents) in one semester and receive at least a "C" in each course. These courses must be approved by the dean or department chairperson of the program to which the student is applying for readmission. Readmitted students will be placed on probation until both the GPA and credit accumulation standards have been met.



Dismissal, Readmittance for Degree Programs

A student must demonstrate discernible progress toward the achievement of a degree in a given program of study. If a student fails one or more introductory courses in a major sequence, as determined by the department, he/she may be dismissed by the department from that program of study—but not necessarily from the college.

To be considered for readmittance to the program, the student must submit an internal petition to the department, which shall determine acceptance or rejection. In the case of programs that have limited space for freshmen, the Admissions Office shall notify the student of his/her readmittance into the program and adjust accordingly the number of spaces available for new freshmen. A maximum of 10% of the total number of available spaces for freshmen in a program may be used for readmitted students.

This policy applies to the following 11 programs—Dental Hygiene, Engineering Science, Medical Assistant, Medical Laboratory Technology, Medical Record Technology, Nursing, the Office Technologies curriculums of Executive Secretary, Office Services Assistant, Word Processing and General Office Certificate, Radiologic Technology.



OTHER ACADEMIC PROCEDURES

Attendance Regulations

Attendance in all scheduled course activities is expected as part of each student's responsibility for his/her own education. The policy of the College is that the student's academic achievement will determine grades and not just the statistics of presence or absence.

Student Responsibility: Each student is responsible for any work missed regardless of reason for any absence in class.

Instructor Responsibility: Each instructor is responsible for relating the significance of attendance to the course's objectives and to inform the students of this significance in the first class meeting.

Department Responsibility: Within the spirit and framework of college policy, each department may develop its own guidelines to meet its needs. Such guidelines are subject to the approval of the vice-president for academic affairs.

Student Academic Appeal Procedure

Broome Community College has established a procedure to provide students an opportunity to appeal grades in any particular course(s) or academic dismissal. Copies of the Student Academic Appeal procedure are available in the offices of the Divisional Deans, and the policy also appears in the Student Handbook.

Withdrawal from the College

Broome Community College has committed itself to a philosophy of providing whatever assistance is necessary to aid the student in completing his/her academic goals. Students are strongly encouraged to seek academic and personal counseling prior to any withdrawal.

Students who decide to withdraw from the College must complete the proper termination forms available in the Registrar's Office or Counseling Center. Failure to comply may cause the individual to lose any possible refund of fees.

The College reserves the right to administratively withdraw a student from course(s) for lack of attendance. The Registrar's Office coordinates this process.

Length of Curriculum

Most associate degree programs are designed to be completed in two years. The college year is divided into two semesters of 15 weeks each plus an evaluation week. Some students may choose or be required to take more than four semesters to earn their degrees. Radiologic Technology students, for example, have special clinical laboratory experiences in the summer of both their freshman and senior years.

Registration Policy

Registration for credit courses will be permitted through the Friday of the first week of classes (each semester/summer term). To be registered is distinct from changing a student's course schedule through the drop/add process.

Withholding of Grades

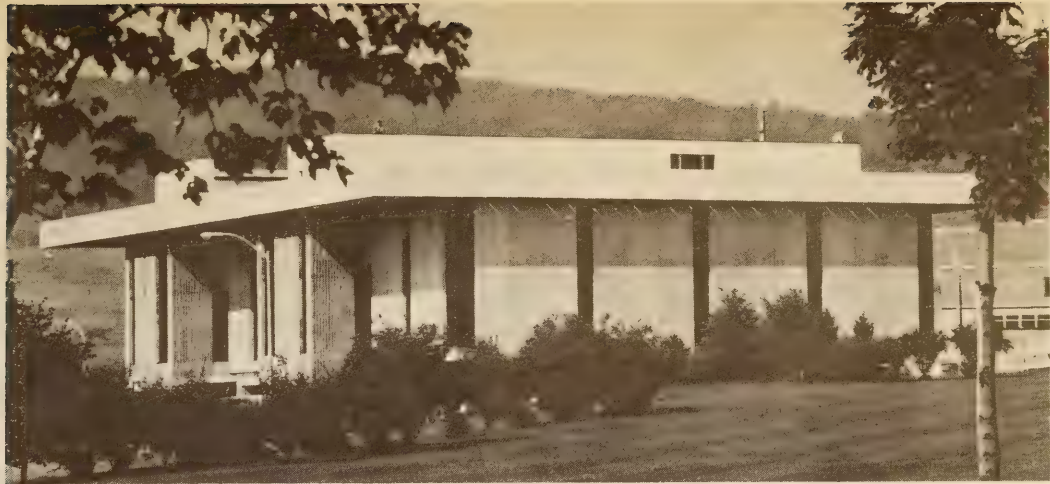
Students' grades will be withheld by the Registrar's Office for any semester in which there are outstanding financial or property-returning obligations. These could be to such college offices as Security, Learning Resources Center (Library), Student Accounts, Physical Education, as well as others. Students must settle any such outstanding debts to the College and then present evidence of the settlement to the Office of the Registrar, after which their grades will be distributed.

Independent Study

Many academic departments of the College offer "Independent Study" courses which are arranged between an individual faculty member and a motivated student. The student has the responsibility to make appropriate arrangements with a faculty mentor and to secure the permission of the department chairperson before registering for independent study.

A student may not take more than one Independent Study course per semester.

Independent Study courses are **not** intended to replace regular courses which the student was unable to schedule or which he/she did not complete. Rather, these courses provide an opportunity for the serious student who desires to expand his academic background beyond the scope and the depth usually found in a regular course. (See course description section for offerings.)



THE CECIL C. TYRRELL LEARNING RESOURCES CENTER

The Cecil C. Tyrrell Learning Resources Center provides a wide variety of learning resources. Housed in the center are the Library, the Audio Visual Department, the Mathematics Learning Center, the Writing Center, the Reading and Study Skills Center and an Engineering Sciences and Technologies Learning Center, as well as offices and classrooms.

A staff of professional, technical and clerical specialists offers the students a broad range of services designed to meet their academic needs. Typical library services include lending of materials, information services, access to other learning resource centers, inter-library loan service, assistance in research techniques, and instruction in the use of materials and equipment. A coin operated photocopier is also available.

The Learning Resources Center's primary function is to support and supplement the academic programs of the college and to provide a center for serious study, research and learning. Students are encouraged to use its facilities, materials, and services fully, but properly. Requests for information services and assistance are welcomed by the staff.

The facilities have a capacity of nearly 900 users. Individual carrels, lounge furniture, multiple person tables and stools, and a limited number of small group study rooms are available. Audio-visual equipment including projectors, tape and record players, micro-film

reader/printers, as well as more specialized machines, are located in the center for student use. Some typewriters are also available.

The Learning Resources Center was constructed in 1967-68 and named for the College's founding president in 1972, the year he retired after 26 years in the position. The building is an attractive and modern three-story structure, with more than 40,000 square feet of space devoted to its learning facilities.

The Learning Resources Center collections offer many different types of print and nonprint materials carefully selected to meet the academic needs of students at college level. The print collections consist of nearly 70,000 books, 650 current periodicals and serials, plus over 10,000 pamphlets.

More than 3,000 audio recordings, slides, filmstrips, maps, microfilms, multimedia kits, and other types of media add several thousand more items to the collection. An extensive file of college catalogs is maintained.

Most materials including magazines may be borrowed for use outside the center, although some restrictions are placed on reference and reserve materials. The basic loan period for books is four weeks, and for magazines and audio visual materials, one week.

Some loan periods may be extended if requested before the date the materials are due back in the center and the items not in demand. Overdue fines are not

charged as a rule, but the college reserves the right to do so with proper notification.

Library cards will be issued to students upon request, but are not required for borrowing materials. Proper identification is necessary, however. Failure to return borrowed materials promptly upon notice can result in withholding of grades, transcripts and other services.

Lost and damaged materials must be replaced or paid for at current replacement costs, and the borrower is responsible for all materials charged out on his/her card.

The center is open for full service during the following hours:

Fall and Spring Semesters

Monday-Thursday	8 am to 10 pm
Friday	8 am to 5 pm
Saturday	12 noon to 5 pm
Sunday	4 pm to 10 pm

Holiday and Intercession

Monday-Friday	8 am to 5 pm
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Summer Session

Monday, Tuesday, Thursday	8 am to 9 pm
Wednesday, Friday	8 am to 5 pm

(The center is closed, however, on all days that the College is officially closed.)

ABSENCE DUE TO RELIGIOUS BELIEFS

Section 224-a of the State Education Law reads:

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he is unable, because of his religious beliefs, to attend classes or to participate in any examination, study or work requirements on a particular day or days.

2. Any student in an institution of higher education who is unable, because of his religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.

3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his religious beliefs, an equivalent opportunity to make up any examination, study or work requirements which he may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.

4. If classes, examination, study or work requirements are held on Friday after 4 p.m. or on Saturday, similar or makeup classes, examinations, study or work requirements shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study or work requirements held on other days.

5. In effectuating the provisions of this section, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.

6. Any student, who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section, shall be entitled to maintain an action or proceeding in the supreme court of the county in which such institution of higher education is located for the enforcement of his rights under this section.

6-a. A copy of this section shall be published by each institution of higher education in the catalog of such institution containing the listing of available courses.

7. As used in this section, the term "institution of higher education" shall mean schools under the control of the Board of Trustees of the State University of New York or of the Board of Higher Education of the City of New York or any community college.



PROGRAM-IDENTIFYING NUMBERS

State regulations require a listing of all curriculums, together with the degrees they lead to and their HEGIS code numbers. HEGIS stands for Higher Education General Information Survey, and the HEGIS numbers for each curriculum are official federal and state designations. Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain aid awards.

HEGIS	Degree	Curriculum
5001	CERT	Business Skills
5002	AAS	BUS—Accounting
5004	AS	BUS—Business Administration
5004	AAS	BUS—Marketing Management & Sales
5005	CERT	General Office
5005	AAS	BUS—Secretarial Science—Word Processing
5005	AAS	BUS—Secretarial Science—Executive
5005	AAS	BUS—Secretarial Sciences, Office Services Assistant
5012	CERT	Interior Design
5099	CERT	Paralegal Assistant
5099	AAS	Paralegal Assistant
5101	AS	Computer Science
5101	AAS	Data Processing
5101	AAS	Computer Technology
5203	AAS	Dental Hygiene
5205	AAS	Medical Laboratory Technology
5207	AAS	Radiologic Technology
5208.10	AAS	Undergraduate Nursing
5213	AAS	Medical Record Technology

5214	AAS	Medical Assistant
5305	AAS	Chemical Engineering Technology
5306	AAS	Automotive Service Specialist
5309	AAS	Civil Engineering Technology
5310	AAS	Electrical Engineering Technology
5312	CERT	Industrial Technology
5312	CERT	Industrial Technology - Industrial Safety & Occupational Hygiene
5312	CERT	Machinist Related Instruction
5312	AAS	Industrial Technology
5312	AAS	Industrial Technology - Industrial Safety & Occupational Hygiene
5312	AOS	Tool and Die Making
5315	AAS	Mechanical Engineering Technology
5404	CERT	Dietary Manager
5503	CERT	Child Care
5503	AAS	Child Care
5505	CERT	Criminal Justice
5505	AAS	Criminal Justice - Police
5507	CERT	Fire Protection Technology
5507	AAS	Fire Protection Technology
5609	AS	Engineering Science
5649	CERT	Liberal Arts
5649	AS	Liberal Arts and Sciences
5649	AA	Liberal Arts and Sciences
5699	AS	Individual Studies
5699	AAS	Individual Studies

NOTE—"CERT" means certificate, not a degree.

LEARNING SKILLS CENTER

Department Chairman, Steven Natale
1st Floor, Cecil C. Tyrrell
Learning Resources Center
Telephone 771-5038

Students entering college may not have the appropriate preparation for the Associate Degree they seek—for example, when a person changes careers, returns to school after several years, or needs to upgrade particular academic skills.

BCC's Learning Skills Center is committed to helping students realize their goals, regardless of prior academic preparation. The Center has courses and activities available for students and works closely with the Admissions and Financial Aid Offices, The Counseling and Student Development Center and Educational Opportunity Program personnel to provide a supportive environment for learning.

OFFICE FOR THE DISABLED

Counselor James Gormley
Counseling and Student Development Center
Wales Building, Room 200
Telephone 771-5210 (Voice-TDD/TTY)

In addition to regular student services on campus disabled students entering college may receive special assistance. The Office for the Disabled provides these students additional help in achieving their educational goals.

Such services as interpreters, readers and notetakers are available, and adjustments for program accessibility like rescheduling classes and elevator use are also arranged. Through the Learning Resources Center and other departmental areas, students may obtain and use various aids as the Visualtek Machine, light magnifiers, tape recorders, projectors, large print reading materials and taped books.

Federal Law prohibits pre-admission inquiries concerning disabilities. Therefore, it is strongly recommended that students complete a brief card regarding disabilities at orientation sessions or when coming to the campus in the fall. This voluntary self-identification is confidential but will enable the College to plan for student needs and provide better service.

A TDD/TTY telephone unit is available in the Admissions Office, the Counseling and Student Development Center, and the EOP (Economic Opportunity Program) Office to make them accessible to the hearing impaired. The respective numbers are 771-5001 and 771-5210 and 771-5109 (Voice-TDD/TTY).

DIAGNOSTIC TESTING—The Learning Skills Center administers three tests to every entering full-time student—in reading, writing and mathematics. Part-time students are also encouraged to take these tests.

COURSE PLACEMENT—The Learning Skills Center uses the information gained from these tests to recommend and, in some cases, require students to take developmental courses that are most appropriate to his/her program of study. Every effort is made to place students in courses in which they can succeed. Students with serious deficiencies will be required to enroll in appropriate non-credit courses.

DEVELOPMENTAL COURSES—Various courses are offered through the Center for those desiring skill improvement or review. Some of these carry credit; others do not. The non-credit courses listed below prepare students for credit level work in the basic skill areas of mathematics, writing and reading. These non-credit courses are equivalent in time to credit bearing classes and are applicable toward financial aid and athletic eligibility.

	Courses	Credit or Equivalent	Catalog Page
ENG 090	Basic Language Skills	0 or 3*	92
MAT 003	Basic Math Review	0 or 3*	99
RDG 090	Reading Fundamentals	0 or 3*	116
RDG 100	College Reading	0 or 3*	116

(For explanation of "credit equivalent," see page 21)

Other developmental courses are credit bearing. Students should pay close attention to catalog information pertaining to these courses and should consult their department chairpersons or Learning Skills personnel about the acceptability of credit in a particular degree program.

	Courses	Credit	Catalog
CHM 102	Preparatory Chemistry	4	77
LRS 101	Study Management	.5	116
LRS 102	Memory and Exams	.5	116
LRS 103	Textbook Mastery	.5	116
LRS 104	Listening and Note-taking	.5	116
LRS 110	The Research Paper	1	116
LRS 120	The Art of Thinking	1	116
PHY 100	Preparatory Physics I	4	113
PHY 101	Preparatory Physics II	4	113
SAC	Human Development Courses	2-3	97

DROP-IN ASSISTANCE—Learning Skills Center specialists help students with short term academic difficulties, such as writing a term paper, reading a difficult textbook, or solving a complex math problem. The staff encourages students to drop in to the Center for this type of assistance.

TUTORING—When a student experiences more serious academic difficulty and is in danger of failing a course, he/she may apply to the Center for peer tutorial assistance.

Located in the Cecil C. Tyrrell Library, the Center is open from 8:30 a.m. to 4 p.m. In addition, evening hours are posted each semester. Detailed brochures describing the various programs are available at the receptionist's desk in the Center.

BCC FOUNDATION

The Broome Community College Foundation, Inc, is a not-for-profit corporation that raises private funds to assist BCC students through grants, scholarships and loans. It also helps the College by supplying funds for programs and projects for which public dollars are unavailable or insufficient. Providing faculty development funds to help faculty members attend workshops and seminars and to take graduate courses is an example of the use of these special funds.

In addition to accepting direct cash gifts, the Foundation serves as the administrative conduit for all in-kind gifts to the College. Equipment, books and works of art are examples of material received by the College through the Foundation. All gifts to the Foundation, whether cash, securities or material, are tax deductible.

ALUMNI

The Broome Community College Alumni Association provides the link between the College and its alumni. Any former student may become a member by paying the modest lifetime dues of \$25.

The Office of Alumni Affairs, which is located in the Wales Building (Room 203) serves as a liaison among the College, its faculty, administration and 20,000 alumni. The office coordinates the total alumni effort and works closely with the Alumni Association Board of Directors.

Membership in the Alumni Association gives alumni the opportunity for group life insurance, travel programs, discount buying programs, as well as a variety of social and cultural activities throughout the year. The Association also helps fund the BCC NEWSLETTER which is sent to all alumni.

Counseling and Student Development Center

The Counseling and Student Development Center provides many services for students, whether they are enrolled full-time or part-time, day or evening. Students can meet with counselors in a helpful and informal atmosphere as they seek to develop their potential, form realistic goals, and understand themselves emotionally and intellectually. The Center is equipped to help students:

1. Understand their basic needs in terms of social, vocational and emotional adjustment to the college setting.
2. Establish realistic educational goals and appropriate methods of achieving them.
3. Assess their strengths and weaknesses to enable them to more effectively deal with academic and personal problems.
4. Better understand their role and that of the College in the higher educational process.
5. Obtain information about transfer and career opportunities, as well as assistance in dealing with academic problems.
6. Grow in their personal development and determine appropriate values through instruction in human development courses.

The Counseling and Student Development Center, located on the second floor of the Wales Building is staffed by professional counselors. The Center is open from 8 a.m. to 8 p.m., Monday through Thursday, and 8 a.m. to 4:30 p.m. Friday during the academic year. Students should become acquainted with the Center by stopping in at their convenience or calling for an appointment. A special brochure is available at the Center, giving details about the services.

CAREER AND LIFE PLANNING

Broome Community College offers an opportunity for students to explore interests, strengths and values in both an individual and group setting. Knowing as much as possible about oneself is the first step in understanding goals related to self fulfillment and to the world of work. The Counseling and Student Development Center can help in the process of self-evaluation and has information on career possibilities, audio-visual aids, testing procedures and techniques used in the process of exploring career fields and making career decisions. Counselors work closely with the College's Placement Center staff in offering students a comprehensive approach to career planning.

PERSONAL COUNSELING

Counseling is available for students experiencing social, personal and family concerns. Counselors attempt to help students face their problems with an holistic approach. Assistance is given in both direct and indirect ways, by exploring, understanding and dealing with tasks and crises related to the problems being experienced. Counselors may make referrals to appropriate community agencies, if that should be necessary and mutually agreeable. All counseling is strictly confidential.

ACADEMIC COUNSELING

Counselors are available to help students put their academic efforts into the proper perspective by analyzing their study, social and work habits to enable them to utilize their time in the most efficient way.

TESTING

The Counseling and Student Development Center offers students the opportunity to engage in a testing program. When appropriate, it can be arranged for a student to take a variety of tests including personality and interest inventories. Cognitive style mapping is also available to help students better understand their individual learning preferences. The tests can help students develop self awareness and improve their decision-making ability.

HUMAN DEVELOPMENT COURSES

Courses are offered which provide students with an opportunity to examine their values, attitudes, beliefs and abilities. The courses also offer an opportunity to learn how these factors affect the quality of relationships with others. In addition, the students examine the challenge and problems of society as they relate to their development. All courses are transferable for credit. See page 97 for course descriptions.

TRANSFER TO 4-YEAR COLLEGES AND UNIVERSITIES

Broome Community College has developed a fine reputation for its successful preparation of students for study at senior institutions. Students desiring to continue their education are encouraged to consult with a counselor in the Counseling and Student Development Center, their faculty advisor, or department chairperson for assistance in selecting a program and/or institution that is appropriate to their goals, abilities and aspirations.

To these ends, the College conducts the Transfer Emphasis Program, which consists of visits to the campus by representatives of four-year schools to recruit and advise potential transfer students. These visits occur each semester, and they are designed to expedite the information process necessary to insure a smooth transition between community college and various four-year programs. The representatives, generally from admissions offices, discuss life on their campuses, financial assistance possibilities and activities available, in addition to the traditional explanations of all their academic programs.

Applications for the **State University of New York** colleges and university centers are available in the Counseling and Student Development Center. Students should apply directly to all **other colleges** (non-SUNY units) by requesting an application and any other pertinent data from the admissions office of the desired college.

All students should arrange at the BCC Registrar's Office to have copies of their transcripts forwarded to the admissions offices of the colleges to which they are applying. This will insure proper transfer of applicable credits. Any requests for references and recommendations may be forwarded to the Counseling and Student Development Center, and all acceptances and rejections of applications should also be reported to the Center.

Any questions or problems regarding transfer should also be directed to the Counseling and Student Development Center, which can help students determine if another college is accredited. For information on special transfer opportunities, see pages 18 and 19.

ORIENTATION PROGRAM

Freshman, transfer or re-admitted students will have an opportunity to participate in various advising, counseling and orientation sessions as well as social and cultural activities prior to and during the semester of acceptance into the College. Information concerning these activities will be mailed to all students prior to the beginning of the semester.

The staff of the Student Affairs Office endorses the concept that a community college environment should facilitate the development of the whole student.

SPECIAL WORKSHOPS AND SEMINARS

The Center offers a variety of workshops and seminars throughout the college year. Those that have been offered cover such topics as relaxation techniques, career exploration, cognitive style mapping, returning to college, and assertiveness training.

PROGRAM FOR PEOPLE OVER 60

Any citizen of New York State who is 60 years of age or more may "audit" courses at Broome Community College without charge, as long as there is space available. In this connection the word "audit" means these students take the course by attending classes and being exposed to all the work given in class and assigned in the text. They do not have to do the homework or take the examinations, however, and they receive no letter grade or college credit.

WOMEN'S PROGRAMMING

Broome Community College counselors are responsive to all students and, in particular, the women who make up more than 50% of the current student body. The women range in age from their teens to their 70's, with many of them returning to school after varying numbers of years away from the classroom.

Women can learn individually and in small groups how to begin a program, schedule it into their lives, and receive information, support and encouragement. The many counseling programs the center offers can help them achieve their academic goals, whether it be a few courses or a degree to transfer to a 4-year college or to find employment.

TDD/TTY TELEPHONES

A TDD/TTY telephone unit is available in the Counseling and Student Development Center to make it accessible for the hearing impaired. The number is 771-5210. The College also has one in the Admissions Office (771-5001) and the Economic Opportunity Program (EOP) Office (771-5109).

STUDENTS FROM OTHER NATIONS

The College welcomes and encourages qualified students from other countries to enroll and is authorized by the United States Department of Justice to issue necessary Certificates of Eligibility (Form I-20). For admissions information, these students should contact the Admissions Office at Broome Community College, P.O. Box 1017, Binghamton, New York 13902, U.S.A.

Most programs at the College have different admission standards. However, as a minimum for entering the College, students must:

- Demonstrate proficiency of the English language by (1) submitting official TOEFL scores of 400 or better or a Michigan Test score of 65 or better or (2) submitting official English language translations of transcripts from all secondary schools and colleges attended in order to prove successful completion of at least four full years of English language instruction.
- Submit TOEFL or Michigan test scores, if either of these tests of English language proficiency has been taken. Students whose native language is not

English must also take a special language proficiency exam at the College before they are allowed to register for classes.

- Provide an affidavit of financial support and a transcript in English (certified translation) of all secondary school or college work.
- Show evidence of health insurance coverage. The National Association of Foreign Student Affairs offers a health plan to meet the needs of foreign students. Information on this plan will be sent to students upon acceptance into the College.

No housing is provided for students at BCC. Some local residents list available housing with the College and students are responsible for making their own housing arrangements. It is estimated that College costs and living expenses approximate \$6,000 per year.

The College provides an advisor to assist students from other countries in all areas of student life while at Broome Community College. Both academic and non-academic problems may be discussed with the advisor, whose office is in the Wales Building, Room 210.



Most students who attend Broome Community College will eventually enter the labor market. Getting a job, particularly that first entry level position, requires an understanding of how to contact employers and what job hunting techniques provide the best employment success. The Placement Office not only helps students locate positions but offers assistance in resumé writing and interviewing techniques.

The Placement Office lists full-time, part-time and seasonal jobs from employers who want to hire Broome Community College students and alumni. Most of these positions are related to academic programs at the College, and they are of particular value to students wishing to gain experience in their chosen field. The New York State Employment Service "Job Bank" and employment counselor are also available on a daily basis in the Placement Office (Wales Building, Room 201).

The quality of the College's academic programs is well known by many companies both locally and nationally. During the spring semester of every year, representatives of business and industry visit the campus to interview potential graduates for employment purposes. Students wishing information regarding this recruiting program should contact the Placement Office by November 1.

Individual appointments can be made to discuss job market predictions, salary expectations, and other questions related to employment.

89% of 1984 GRADUATES FOUND JOBS OR TRANSFERRED

• **89% of the 1984 Graduates** either found employment or transferred to 4-year colleges, thus enabling BCC to fulfill its two major missions of preparing graduates for immediate employment or transfer to 4-year colleges.

- 53% of the graduates went to work.
- 36% transferred to 2 and 4 year colleges or other technical programs.
- 8% were unemployed at the time of the survey.
- 3% unavailable for work.

• **Starting Salaries** of those who went to work averaged \$13,622 a year and ranged from \$24,000 down to \$7,000.

• **1131 Graduates in Class of 1984** at Broome Community College, and 88% of them responded to survey. All statistics here are based on that 88% response.

• Where They Went to Work:

80% of those who went to work found jobs in Broome County, with an additional 11% working elsewhere in the Southern Tier. In addition, 1½% got jobs elsewhere in New York State, and another 7½% went outside of the state.

• Where They Transferred to:

- 65½% of those who are continuing their higher education transferred to colleges in the State University of New York (SUNY) system.
- 21% to private colleges in New York State.
- 13½% to out-of-state colleges and universities.

• Leading Employers, in order:

Large industries in NY State, such as (in order)
IBM, Universal Instruments, Singer-Link,
General Electric, Anitec Image.
Hospitals and Nursing Homes in Broome County
Retail Stores in Broome County
Day Care, Education and Non-Profit Organizations
in Broome County
Small to medium industry in Broome County
Small Businesses in Broome County
Physicians in Broome County

• Colleges to which BCC Graduates Transferred, in order:

SUNY Binghamton
Rochester Institute of Technology
Clarkson College of Technology
SUNY College at Oswego
SUNY College at Cortland

Out-of-State Large Industries, such as Wolfdata
Corp. in Mass., Sandia Scientific National
Laboratories in New Mexico, Digital Equipment
Corp. in Mass., Sperry Flight Systems in New
Mexico
Law Offices
Hospital and Nursing Homes in Southern Tier
Accounting and Insurance Firms in Broome County
Out-of-State Hospitals

Rensselaer Polytechnic Institute (RPI)
SUNY Buffalo
SUNY College at Fredonia
Syracuse University
SUNY College at Geneseo

PLACEMENT For Class of 1984 THE ACADEMIC AREAS

BUSINESS—348 graduates, 58% employed, 9% unemployed, 29% transferred, 3% unavailable for work. Salary info—\$11,006 average, \$16,900 to \$7,000 range.

COMPUTER STUDIES—106 graduates, 41% employed, 10% unemployed, 45% transferred, 3% unavailable for work. Salary info—\$13,207 average, \$18,000 to \$8,320 range.

HEALTH SCIENCES—154 graduates, 72% employed, 10% unemployed, 12% transferred, 6% unavailable for work. Salary info—\$14,739 average, \$21,800 to \$7,500 range.

LIBERAL ARTS—160 graduates, 16% employed, 6% unemployed, 75% transferred, 3% unavailable for work. Salary info—\$12,159 average, \$17,036 to \$9,900 range.

ENGINEERING AND ENGINEERING TECHNOLOGY—284 graduates, 52% employed, 6% unemployed, 41.5% transferred, .5% unavailable for work. Salary info—\$16,153 average, \$24,000 to \$8,500 range.

SPECIAL CAREER PROGRAMS—84 graduates, 71% employed, 1% unemployed, 23% transferred, 4% unavailable for work. Salary info—\$8,819 average, \$11,500 to \$7,000 range.

CURRICULUMS

Following is a summary of each curriculum of BCC's six academic areas in which there were graduates last year. Percentages are based on number of graduates reporting, not total number.

ENGINEERING AND ENGINEERING TECHNOLOGY

CHEMICAL ENGINEERING TECHNOLOGY—23 graduates, 65% employed, 22% unemployed, 13% transferred. Salary info—\$17,706 average, \$24,000 to \$16,000 range.

CIVIL ENGINEERING TECHNOLOGY—14 graduates, 36% employed, 7% unemployed, 50% transferred, 7% unavailable for work. Salary info—\$11,760 average, \$15,600 to \$8,500 range.

ELECTRICAL ENGINEERING TECHNOLOGY—68 graduates, 75% employed, 6% unemployed, 18% transferred. Salary info—\$16,933 average, \$20,000 to \$13,500 range.

ENGINEERING SCIENCE—87 graduates, 11% employed, 2% unemployed, 87% transferred. Salary info—\$13,639 average, \$15,000 to \$12,500 range.

INDUSTRIAL TECHNOLOGY—29 graduates, 87% employed, 4% unemployed, 9% transferred. Salary info—\$14,750 average, \$17,000 to \$13,000 range.

MECHANICAL ENGINEERING TECHNOLOGY—47 graduates, 80% employed, 4% unemployed, 33% transferred, 2% unavailable for work. Salary info—\$16,486 average, \$18,720 to \$12,900 range.

BUSINESS

ACCOUNTING—77 graduates, 72% employed, 12% unemployed, 12% transferred, 4% unavailable for work. Salary info—\$10,875 average, \$16,900 to \$7,800 range.

BUSINESS ADMINISTRATION—105 graduates, 30% employed, 8% unemployed, 61% transferred, 1% unavailable for work. Salary info—\$11,790 average, \$15,600 to \$8,320 range.

MARKETING MANAGEMENT—71 graduates, 59% employed, 9% unemployed, 25% transferred, 7% unavailable for work. Salary info—\$10,678 average, \$13,500 to \$7,800 range.

MARKETING SALES—21 graduates, 47% employed, 13% unemployed, 33% transferred, 7% unavailable for work. Salary info—\$8,580 average, \$8,840 to \$8,320 range.

SECRETARIAL SCIENCES (ENGINEERING)—14 graduates, 83% employed, 8% unemployed, 8% transferred. Salary info—\$12,500 average, \$13,884 to \$9,000 range.

SECRETARIAL SCIENCES (EXECUTIVE)—44 graduates, 91% employed, 2% unemployed, 7% transferred. Salary info—\$11,007 average, \$15,392 to \$7,000 range.

SECRETARIAL SCIENCES (OFFICE SERVICES)—16 graduates, 69% employed, 18% unemployed, 6% transferred, 6% unavailable for work. Salary info—\$9,498 average, \$13,884 to \$7,634 range.

COMPUTER STUDIES

COMPUTER SCIENCE—53 graduates, 22% employed, 8% unemployed, 70% transferred. Salary info—\$13,880 average, \$15,400 to \$8,320 range.

DATA PROCESSING-BUSINESS—37 graduates, 62% employed, 16% unemployed, 16% transferred, 6% unavailable for work. Salary info—\$12,078 average, \$15,400 to \$8,320 range.

DATA PROCESSING-TECHNICAL—16 graduates, 64% employed, 7% unemployed, 21% transferred, 7% unavailable for work. Salary info—\$15,250 average, \$16,500 to \$14,000 range.

LIBERAL ARTS AND SCIENCES

ASSOCIATE IN ARTS DEGREE—144 graduates, 14% employed, 5% unemployed, 78% transferred, 3% unavailable for work. Salary info—\$10,800 average, \$11,700 to \$9,900 range.

ASSOCIATE IN SCIENCE DEGREE—7 graduates, 20% unemployed, 80% transferred. Salary information not available.

MENTAL HEALTH EMPHASIS—9 graduates, 56% employed, 33% transferred, 11% unavailable for work. Salary info—\$13,518 average, \$17,036 to \$10,000 range.

Student Affairs

Student affairs at Broome Community College fall within three primary areas of responsibility—student development, student services, and student management.

Student Development responsibilities include counseling, international student affairs, academic advisement, testing, freshman orientation, student activities, intercollegiate athletics, drug abuse education, leadership training, career development, veterans advisement, personal development courses, transfer advisement.

Student Services cover admissions, financial aids, placement, health services.

Student Management concerns itself with student discipline, rights, responsibilities, judicial system and grievance procedures.

A comprehensive statement outlining the College's code of student conduct and student rights and responsibilities is available in the office of the Vice President for Student Affairs in Room 107 of the Wales Building. Students are welcome to examine it.

Educational Opportunity Program (EOP)

The Educational Opportunity Program is designed for students who are economically and educationally disadvantaged. It provides economic aid and remedial and developmental assistance, with the amount of financial aid based on need. Students who do not require financial assistance under this program may benefit from the educational services offered by EOP. To be funded by EOP, students must provide appropriate income information, and all students must be New York State residents as this is a state program. The EOP Office at the College is located in the Cecil C. Tyrrell Library.

Special Services Program

The program provides counseling services, tutorial assistance, academic advisement, diagnostic test interpretation, transfer information, referrals and other student services. Tutoring sessions are held during the day at Broome Community College and also evenings and weekends at designated locations. The Special Services counselor is located in the Cecil C. Tyrrell Library.

HEALTH SCIENCES

DENTAL HYGIENE—21 graduates, 94% employed, 6% transferred. Salary info—\$15,217 average, \$16,700 to \$14,000 range.

MEDICAL ASSISTANT—16 graduates, 75% employed, 19% unemployed, 6% unavailable for work. Salary info—\$10,047 average, \$14,560 to \$7,500 range.

MEDICAL LABORATORY TECHNOLOGY—13 graduates, 8% employed, 15% unemployed, 62% transferred, 15% unavailable for work. Salary info—\$14,000 average. Salary range not available.

MEDICAL RECORD TECHNOLOGY—17 graduates, 65% employed, 23% unemployed, 6% transferred, 6% unavailable for work. Salary info—\$10,088 average, \$12,250 to \$10,088 range.

NURSING—76 graduates, 87% employed, 3% unemployed, 6% transferred, 4% unavailable for work. Salary info—\$16,197 average, \$21,840 to \$11,211 range.

RADIOLOGIC TECHNOLOGY—11 graduates, 20% employed, 30% unemployed, 30% transferred, 20% unavailable for work. Salary information not available.

SPECIAL CAREER PROGRAMS

CHILD CARE—19 graduates, 70% employed, 18% transferred, 12% unavailable for work. Salary info—\$7,723 average, \$8,500 to \$7,000 range.

CRIMINAL JUSTICE—24 graduates, 67% employed, 5% unemployed, 28% transferred. Salary info—\$8,860 average, \$11,500 to \$7,280 range.

FIRE PROTECTION TECHNOLOGY—6 graduates, 100% employed. Salary information not available.

INDIVIDUAL STUDIES—8 graduates, 71% employed, 14% transferred, 14% unavailable for work. Salary information not available.

INDIVIDUAL STUDIES—8 graduates, 37.5% employed, 62.5% transferred. Salary information not available.

INDUSTRIAL SAFETY AND OCCUPATIONAL HYGIENE—1 graduate, 100% employed. Salary information not available.

PARALEGAL ASSISTANT—18 graduates, 92% employed, 8% transferred. Salary info—\$9,670 average, \$10,500 to \$9,000 range.

OTHER PROGRAMS

AUTOMOTIVE SERVICE SPECIALIST—graduate, 100% employed. Salary information not available.

TOOL AND DIE MAKING—15 graduates, 92% employed, 8% unemployed. Salary info—\$14,182 average, \$19,156 to \$10,000 range.

Health Service

The college provides a Health Service which is available to all students at no additional charge for services rendered on campus.

Professional staff includes a full time nurse practitioner, a physician available two mornings a week for three hours, and one registered nurse on duty during regularly scheduled class periods.

The Health Service is located in the Wales Administration Building, Room 104, and is available 8:30 a.m. to 4:30 p.m., Monday through Friday. All records are confidential, and information will be released only with the written authorization of the student.

SERVICES:

- Treatment of illnesses and injuries.
- Medical emergency care.
- Athletic physicals for varsity sports.
- Blood pressure and vision checks.
- Pap tests by appointment.
- Pregnancy testing
- Referrals to local physicians, specialists, dentists, clinics, hospitals.
- Allergy injections - medication to be supplied by student.
- Tetanus and PPD-Mantoux injections.
- Birth control information and counseling.
- Self Care Cold Center.
- Diet and weight control.
- Free pamphlets pertaining to various health matters.
- Tests for strep throat, mononucleosis, diabetes, anemia and urinary problems.
- STD detection.
- Health education programs on campus.
- Insurance - Processing of accident insurance claims, as well as information regarding international student health insurance and optional sickness plan.
- Counseling and Assistance with personal, academic and health problems with appointment referrals within the college community.
- Emergency Squad composed of students who assist the Health Service in bringing quick, efficient aid in time of emergency. Students are encouraged to become active in this important function on campus.
- Monthly Newsletter with timely hints to assist students to assume responsibility for their own health care.

Living Accommodations

The College has no dormitory facility and assumes no responsibility for student housing. As a service to students, the director of the Student Activities' Office maintains an up-to-date record of housing accommodations which landlords submit as being available. This listing is neither an approval nor rating by the College, nor will the College become a third party in any arbitration between students and landlords. Housing arrangements must be made directly by students and parents with local landlords.



STUDENT ACTIVITIES

In recognizing the existence of "the other half" of college life, the College actively supports a co-curricular activity program that is funded by the student activity fee paid each semester. The Student Activities area represents one phase of campus life in which the students can and do have a voice in management and programming. The diversity of student interests is reflected in the 35 clubs and organizations active on campus. The involvement in Student Activities provides an opportunity to develop leadership abilities.

Credit can be earned for participation in some of these co-curricular activities. Students should check with their advisors for further information concerning these credits.

Student Government Association

The official organization of student representation on the Broome Community College campus is the Student Government Association. Membership on the Executive Board is decided by campus wide election. The remainder of the SGA Senate is comprised of representatives from the College's Curriculums, Athletics, Media Board, Program Board, Freshman and Senior Class, Club Council. They are elected positions. The SGA

Senate holds weekly meetings to discuss all issues concerning the students. These issues are then presented to the appropriate faculty, staff or administrative area. A Student Trustee sits on the College Board of Trustees and presents information of student interest to this body.

Student Government Association fulfills many student responsibilities on campus. It regularly reviews College policy and makes recommendations to the College Administration. Representatives of the SGA Senate serve on the Faculty-Student Association. Student Government Association has the responsibility for coordinating, distributing and supervising the student activity fee. The operation of the student government is important to students and puts student ideas and viewpoints into action.

Program Board

One of the most active organizations on campus is the Program Board. Dances, Broadway road shows, Spring Picnic, noon-hour programs featuring famous artists and speakers, and cultural events both on and off campus are the products of the programmers' efforts. This Board is a voice of the campus in selecting the kinds of entertainment performed.

Club Council

The body that governs the actions and funding of the 35 clubs on campus is Club Council. The diversity of club activities varies with the diversity of interests of the student body. There are curriculum clubs, service organizations, international and minority student interest groups, emergency squad, choir and instrumental music clubs and various athletic organizations. Every club on campus is open for any student who pays the student activity fee. Club Council meets twice monthly with one representative from each club forming the Senate body. If a club or organizational activity that has student interest is not represented on campus, students can visit Club Council for information on starting one.

Student Center

The busiest and most versatile building on the Broome Community College campus is the Student Center. It houses the gymnasium, the College Cafeteria, Book Store, and the Little Theater, and many of the social events are held here. This building is used by day and evening students of all curriculums.

Media Board

Fulcrum (campus newspaper) offers a variety of information for the students. It speaks out on important issues, offers the humorous side of student life, and gives the students a chance to voice their opinions through editorials and human interest stories.

Citadel (the yearbook) provides an opportunity for students to work on a more lasting project and to cover the entire college year in words and pictures.

Audio-Media Organization is for students who want to be involved in live broadcasting. This organization provides the cafeteria with recorded music—radio style—and always needs enthusiastic disc jockeys for its "WROX" operation in the cafeteria.

The Union

The Union is the short, flat, tan building on campus that is known as **The Place** for students to enjoy their break from the books. From eight o'clock in the morning until five in the afternoon, the Union provides diverse recreational activities. Electronic games, ping pong, pool, foosball and pinball are available for play and relaxation. The Union provides the warmth of a fireplace, a lounge for playing chess or cards, a video projector for viewing TV and feature films daily and, of course, vending machines.

The Union also houses offices for a number of student organizations.

Curriculum Organizations

In addition to the student organizations listed above that are affiliated with professional societies, the College has a number of associations that are identified with specific curriculums. Among these are the Business Club, Chemistry Club, Civil Technology Association, Computer Club, Future Secretaries Association, Medical Assistants Association, Medical Laboratory Technology Society, Medical Records Club, Student Nurses Association, Lively Arts from the Liberal Arts curriculum, and the Student Organization of Radiologic Technologists.

Adult Lounge

A comfortably furnished room in the Y-Building located near the Nursing Building at 901 Front Street has a refrigerator for storing bag lunches. It provides an area for study, conversation, a quiet lunch or coffee break.

Other Clubs

In addition to the co-curricular activities listed on this page and the next one, other organizations are active on campus. These include:

Accounting Club	Debate Club
Adult Club	Emergency Squad
Aviation Club	International Student Organization
Camera Club	Outing Club
Campus Bible Fellowship	Ski Club
Campus Ministry	Third World Organization
Cheerleaders	Students with Different Abilities
Chess Club	Students Club for Action
Circle K	

These are open to all full-time students and to part-timers who pay the student activity fee. Details are available in the Student Handbook and from the Director of Student Activities.

Performing Arts

Theatre/BCC

Complementing the studio and academic course work in theater is the group known as Theatre/BCC. All students are invited to participate, whether or not enrolled in formal course work.

Theatre/BCC enjoys a fine artistic reputation, presenting a broad range of theatrical styles, and provides its actors/technicians with varied opportunities for ensemble as well as individual training. Theatre/BCC provides a challenging and exciting experience for students with an interest in the theater, and most of its productions are performed in the intimate setting of the College's Little Theater.

NOTE: Students may receive transferable credit for active participation in College Choir, the Instrumental Music Association and Theatre/BCC. The conditions for this credit are available from one's advisor.

Music

College Choir is sponsored jointly by the Liberal Arts Division and Student Government Association. Choristers have gained an excellent reputation and are exposed to a broad range of choral literature reflecting the varied demands for community concerts. The chorus traditionally produces its own Christmas program for

local television and presents a Christmas-season performance of Handel's "Messiah" and an annual Spring Concert, as well as performing for local church and civic organizations. The College Choir, moreover, makes an annual concert tour to such places as Washington, D.C. or Williamsburg, Va. Rehearsals are held weekly and all students as well as faculty and staff are welcome to sing in the ensemble.

The **Instrumental Music Association** offers students who have previously played instruments the chance to continue their involvement in small ensembles (brass, woodwind and string) and the College Stage Band. A limited program of private coaching is also available.

BCC Jazz Ensemble offers instrumentalists a chance to perform jazz and jazz-rock on campus, in the community, at competition and on tour. Its members strive for high quality performing and the enjoyment of working together toward this goal. A group of eight singers is used for popular arrangements with the band.

Improvisation, beginning and intermediate piano, beginning and intermediate voice, beginning guitar classes are available to BCC students.

The Theater and Music Programs have joined in musical theater productions. Any BCC students who are interested may audition for performance on stage or in the orchestra.

Professional Society Affiliates

Since exposure to organizations in their fields of study is considered of benefit to students, many curriculums have their own affiliates of national professional societies. Among these are:

Society of Manufacturing Engineerings (SME) for Mechanical Engineering Technology and for Tool and Die Making students.

Dental Hygiene Association, an affiliate of the American Dental Hygiene Association.

Institute of Electrical and Electronics Engineers (IEEE) for Electrical Engineering Technology students.

In addition, some meetings of local professional societies are attended by students, as the **American Chemical Society** invites Chemical Engineering Technology students to its meetings. Some professional societies hold meetings on campus, too, and students are always welcome to attend. Thus students have the opportunity to become acquainted with professional people in their fields of study and to attend lectures and see films and demonstrations of new developments.

Honor Societies

Phi Theta Kappa

In 1962, the Mu Eta Chapter of Phi Theta Kappa was established at the College. Phi Theta Kappa is a national honor society at two-year colleges, similar in purpose to Phi Beta Kappa at the four-year colleges and universities. Mu Eta Chapter is open to freshmen and seniors at Broome CC who have achieved outstanding academic grades.

Sigma Phi Alpha

The national dental hygiene honor society, Sigma Phi Alpha, has a chapter at Broome CC, the Upsilon Chapter. Senior Dental Hygiene students who rank highest in scholarship and who exhibit potential qualities for future growth and attainment are selected for membership.

Tau Alpha Pi

The national honor society for students in engineering technology programs, Tau Alpha Pi has established a chapter on the Broome Community College campus. It is the Beta Theta Chapter. This society recognizes outstanding academic achievement in BCC engineering technology curriculums in Electrical, Civil, Chemical and Mechanical Technology.

Athletics

Intramurals

Physical activity is a vital part of an individual's life, regardless of physical capability. With this in mind, the Student Affairs Division and the Physical Education Department coordinate an intramural program for all students enrolled at the College. Students are invited to participate in team sports such as soccer, gym hockey, basketball, volleyball and softball. For those interested in individual competition or "play for fun," sports such as tennis, golf, badminton, horseshoes and bowling are also offered. Students participating in intramurals should have a health questionnaire on file with the college Health Service. Forms are available in the Health Service (Wales Building, Room 104).

Women's Sports

Broome Community College fields women's teams in five varsity sports—tennis, cross country, volleyball, basketball and softball—and they have achieved some fine success in recent years.

One of the cross country runners participated in the National tournament in Hutchinson, Kansas in 1983; the tennis team has captured several individual and team regional titles in recent years and participated in the Nationals in 1983 and 1984 in Ocala, FL; after being the runner-up in the Region III Tournament in 1982, the volleyball team captured first place in 1983 and 1984 and

played in the Nationals. Furthermore, both the basketball and softball teams have had excellent records in recent years. Cheerleading is also available for women.

Men's Sports

Broome Community College fields men's teams in eight varsity sports—cross country, soccer, wrestling, basketball, ice hockey, tennis, golf and baseball.

BCC athletic teams have earned an excellent reputation in two-year college competition. Included in the basketball team's 834 victories are 10 regional titles. Coach Dick Baldwin became one of the first inductees into the National Junior College Basketball Hall of Fame, and he is the winningest college basketball coach in the country, including both 2-year and 4-year colleges. The tennis and baseball teams have also been successful in regional competition, and in 1983 the baseball team was the regional champion.

The golf team has also been a recent Region III winner, capturing the team championship in 1981, 1982, 1984 and 1985.

The soccer team too has been good enough in recent years to be invited to post-season competition and the ice hockey team, which several years ago changed from club to varsity status, has shown rapid improvement and in 1983-84 posted a 17-7-1 record and was ranked 5th in the final NJCAA national poll.

BOOK STORE

The College Book Store, or Campus Store as it is sometimes referred to, is located in the Student Center and actually has two areas of operation—the Textbook Department and The Campus Shop.

In the Textbook Department students may purchase their required books. To avoid standing in long lines the first week of classes, students are urged to purchase their books during the advance sale period, which is the week preceding the start of classes in both the fall and spring semester. Books are not available prior to this advance sale period. It is advisable to purchase all required textbooks early in the semester. In addition to the obvious reason of using them for studying, all unsold books must be returned to the publisher shortly after the semester begins.

The Campus Shop offers a variety of items. In addition to such classroom supplies as notebooks, paper, pens and binders, there are art and drafting materials, printed gift items and sportswear.

Students who have any special problems, suggestions or requests should feel free to contact store management.

FACULTY-STUDENT ASSOCIATION

The Faculty-Student Association of Broome Community College, Inc., is an educational corporation designed to provide to the College, and particularly to the students and faculty, services that are not included in the regular College budget.

It provides the corporation organization through which the student fees are expended under a budget prepared by the Student Government Association. It also operates a variety of auxiliary services including the College Book Store and food vending.

The FSA earnings augment student fees to support new or special activities. The association is governed by a board of directors elected by members who hold certain offices on campus. The operating philosophy is to make the educational program outside of the classroom a well-rounded supplement to the students' academic experiences.

The Campus

The College campus is located three miles north of Binghamton on Upper Front Street, which is Route 11 and Route 12 at this point running alongside of Interstate 81. Nine of the 13 buildings form two contiguous quadrangles to make a compact campus layout.

Most of the buildings are two stories high, of modern functional design, and made of brick with colored panel-wall facing. They lie in a suburban setting in the virtual center of the College's 120 acres of land.

Classes are held at the Nimmonsburg Center, one mile north of the campus on Front Street, and a new Applied Technology Classroom-Laboratory Building is under construction and expected to be opened in the fall of 1986.

In addition to classrooms and laboratories, the campus has its own cafeteria, gymnasium and athletic fields and a Little Theater. These facilities add up to make the campus a multi-million dollar investment in the youth of Broome and surrounding counties.

The Community

The community is an industrial and agricultural area in New York State's Southern Tier. It is in the approximate center of the state, measuring from east to west, and its southern extremity touches the Pennsylvania state line.

Binghamton is the principal city in Broome County, but it is only a part of the community known as the Triple Cities. Endicott and Johnson City, along with Vestal and other suburbs, help to make the community much larger in population and geography than the city of Binghamton.

Binghamton has a population of about 55,000 and Broome County's population exceeds 200,000. Diversified industry in the community includes such firms as IBM, General Electric, The Link Division of Singer Co., Savin, New York State Electric & Gas Corp., Universal Instruments and Endicott Johnson.

The College has become an integral part of the community since it was started in 1946. Many of the campus facilities are offered at nominal cost for use by responsible organizations, and most of the College's curriculums are designed to help fill the economic needs of the county.

Campus Carillon

The College has a Maas-Rowe symphonic carillon, which tolls the hours with the Westminster chimes and occasionally plays musical selections through its automatic music roll attachment. The carillon was a gift to the College, donated by a former trustee, the late Dr. Leopold Eckler, and the College Foundation.

About Broome Community College

Broome Community College is a comprehensive community college. It has programs designed to prepare graduates both for immediate employment and for transfer to four-year colleges and universities at the junior, or third-year, level.

In addition to its daytime enrollment of about 3,500 full-time students last year, the college has a sizable number of part-time students. There were about 3,000 in the evening program last year and about 3,000 took courses during the Summer Session.

The College is co-educational, publicly-supported, and has historically attracted about two-thirds of its stu-

dent body from Broome County and one-third from outside the county. The ratio has recently been closer to 80% and 20%.

The day student body can be classified into six parts, based on study objectives—the business programs, engineering and engineering technology curriculums, health science courses, liberal arts programs, computer studies, and special career offerings.

The College is sponsored by Broome County, supervised by the State University of New York, and accredited by both professional and educational organizations (see inside front cover). Its programs, moreover, are registered with the State Education Department.

HISTORY OF THE COLLEGE

The College graduated its first class in 1949. These students had entered what was then known as the New York State Institute of Applied Arts and Sciences at Binghamton in the fall of 1947. The original institute was one of five founded in the state in 1946, following the pattern of six agricultural and technical institutes which New York had established earlier in the century. The first programs offered were all occupational in nature and included Chemical, Electrical and Mechanical Technology, as well as Medical and Technical Office Assistant curriculums.

In 1953 New York relinquished operating control of the school to a new sponsor, the County of Broome, under provisions of the State Community College Law, and the name was changed to Broome County Technical Institute. In 1956 the name was again changed to Broome Technical Community College, to reflect the increasingly comprehensive nature of the educational offerings. In 1971 the name became Broome Community College as the scope of the curriculums continued to expand.

The Civil Technology program was added to the five original curriculums in 1957, Dental Hygiene was introduced in 1956, and the Business programs were expanded to include offerings in Accounting, Marketing, Engineering Secretarial in the 1950's. Executive Secretarial was added in the early 1960's.

A big change in the College's programs began in the late 1950's as a result of a new emphasis on university-parallel or transfer programs to go along with the college's occupational offerings. Engineering Science, the first two years of an engineering program, was introduced in 1958, Liberal Arts and Sciences in 1962 and Business Administration in 1963.

In the late 60's interest began to develop in the health science field. As a result, the College introduced a degree-granting program in X-Ray Technology in 1965, added Medical Laboratory Technology in 1966, Nursing a year later, and Medical Record Technology in 1969. The College was responding to the changing needs of the area and adjusting its offerings to fulfill the mission of catering to the post-high school educational needs of the community.

Criminal Justice and Child Care have been added since, and degree programs in Individual Studies and in Industrial Safety and Occupational Hygiene have also been introduced, along with Office Services Assistant. Additional new offerings have more recently been added in Computer Studies and in Tool and Die Making. A program in Word Processing was added in 1984-85.

For its first five years, the school was housed in a refurbished State Guard Armory in downtown Binghamton. This building was located across the street from The Forum and was gutted by fire in September 1951. For the next five years, Kalurah Temple (now the Church of God Building on Washington Street) and two other buildings in the city provided temporary quarters. In 1957 the College moved to its present campus just north of Binghamton. The first addition to the original campus came with the construction of Titchener Hall, which was dedicated in 1963. The Library Building was completed five years later, and the Business Building opened in 1972.

A new Applied Technology Building is under construction, with a fall 1986 opening planned, the Science Building is being enlarged, and expansion of the Student Center has also been approved.

Programs of Study by Curriculum

The academic programs, whose display of courses appears on pages 34 to 61, are designed primarily for full-time students of the College. It is possible, however, for one to study for an associate degree in any of these curriculums on a part-time basis. To do this, one should contact the appropriate department chairperson. The College's programs that are intended mainly for part-time students appear on pages 62 to 70.

BUSINESS

DEPARTMENT CHAIRMAN, RICHARD P. BEHR
Business Building, Room 105
Telephone 771-5246

ACADEMIC ADVISING, WILLIAM MATECHAK
Business Building, Room 107
Telephone 771-5133

COORDINATORS
John Bunnell and Thomas Kanick
Business Building, Room 103
Telephone 771-5174

Stanley Lee
Business Building, Room 218
Telephone 771-5143

The Business Department offers courses of study in three areas—Accounting, Business Administration and Marketing. In addition, emphases are offered within these curricula in banking, management and sales. These programs were planned with the assistance of advisory committees, made up of businessmen and women currently working in the fields.

To assist the incoming student in selecting the proper option, all have a common first semester. Thus, the final decision of programs can be delayed until registration for the second semester.

Cooperative work experience is available to many business students. This course offers the student both first-hand practical experience and college credit.

A majority of these programs is designed to prepare the graduate for immediate employment. Others, such as Business Administration, are designed to facilitate transfer to a four-year college or university. However, transfer of some courses is possible from each of the programs.

As every college has its own transfer policy, the number of credits accepted will vary. As soon as students identify the school to which they wish to transfer, they should contact that institution to determine the courses which are acceptable.

BUSINESS ADMINISTRATION

FIRST YEAR Fall Semester

			Credits		
			Hours per Week	per	
			Class	Lab	
			Semester		
BUS	100	Accounting I.....	4	0	4
*BUS	112	Quantitative Business Methods.....	2	0	2
BUS	118	Business Law I.....	3	0	3
BUS	141	Marketing.....	3	0	3
ENG	110	Written Expression I.....	3	0	3
			15	0	15

Spring Semester

BUS	101	Accounting II.....	4	0	4
BUS	120	Business Law II.....	3	0	3
CST	110	Introduction to Data Processing.....	3	0	3
BUS	115	Business Statistics.....	3	0	3
ENG	120	Written Expression II.....	3	0	3
			16	0	16

* If a student has passed the Quantitative Business Methods' Challenge Exam, he/she takes a free elective.

SECOND YEAR Fall Semester

Elect 1 of the following 4 courses:					
BUS	200	Intermediate Accounting I.....	(4)	0	(4)
BUS	249	Personnel Management.....	(3)	0	(3)
CST		Computer Programming			
		Elective.....	(2)	(2)	(3)
		Liberal Arts Elective.....	(3)	0	(3)
ECO	110	Introduction to Micro-Economics.....	3	0	3
MAT	121	Finite Mathematics.....	3	0	3
		Lab Science Elective.....	3	3	4
		Liberal Arts Elective.....	3	0	3
PED		Physical Education.....	2	0	1
			16-18	3-5	17-18

Spring Semester

Elect 1 of the following 4 courses:					
BUS	201	Intermediate Accounting II.....	(4)	0	(4)
BUS	245	Management: A Behavioral			
		Approach.....	(3)	0	(3)
		Liberal Arts Elective.....	(3)	0	(3)
		Computer Programming			
		Elective.....	(2)	(2)	(3)
ECO	111	Introduction to Macro-Economics.....	3	0	3
MAT	146	Introduction to Calculus.....	3	0	3
		Lab Science Elective.....	3	3	4
		Liberal Arts Elective.....	3	0	3
			14-16	3-5	16-17

ACCOUNTING

			FIRST YEAR		Credits
			Fall Semester		per
			Hours per Week		Semester
			Class	Lab	
BUS 100	Accounting I.....		4	0	4
BUS 112	Quantitative Business Methods.....		2	0	2
BUS 118	Business Law I.....		3	0	3
BUS 141	Marketing.....		3	0	3
ENG 110	Written Expression I.....		3	0	3
			15	0	15
Spring Semester					
BUS 101	Accounting II.....		4	0	4
BUS 120	Business Law II.....		3	0	3
CST 110	Introduction to Data Processing.....		3	0	3
ENG 120	Written Expression II.....		3	0	3
*MAT 117	Elementary Finite Mathematics				
	or.....		3-4	0	3-4
*MAT 121	Finite Mathematics.....				
			16-17	0	16-17

* Students who have passed Sequential Math III or Intermediate Algebra in high school will take MAT 121 Finite Mathematics.

ACCOUNTING—BANKING EMPHASIS

			FIRST YEAR		
			Fall Semester		Credits per Semester
			Hours per Week		
			Class	Lab	
BUS	100	Accounting I.....	4	0	4
BUS	112	Quantitative Business Methods.....	2	0	2
BUS	118	Business Law I.....	3	0	3
BUS	141	Marketing.....	3	0	3
ENG	110	Written Expression I.....	3	0	3
			15	0	15
			Spring Semester		
BUS	101	Accounting II.....	4	0	4
BUS	120	Business Law II.....	3	0	3
ECO	111	Introduction to Macro-Economics.....	3	0	3
ENG	120	Written Expression II.....	3	0	3
PSY	110	Psychology.....	3	0	3
			16	0	16

		SECOND YEAR			
		Fall Semester			
BUS	245	Management: A Behavioral Approach.....	3	0	3
CST	110	Introduction to Data Processing....	3	0	3
SPK	102	Effective Speaking.....	3	0	3
PHS		Physical Science.....	3	3	4
		Students may choose PHS 113, 114, 115 or 116			
*ECO	253	Money and Banking.....	3	0	-3
			15	3	16

- ECO 111 is a prerequisite for ECO 253 Money and Banking. If enrollment does not justify offering daytime sections of ECO 253, students must attend evening classes in this subject.

		SECOND YEAR			
		Fall Semester			
BUS	200	Intermediate Accounting I.....	4	0	4
BUS	205	Cost Accounting I.....	4	0	4
PHS		Physical Science.....	3	3	4
		Student may choose PHS 113, 114, 115 or 116			
		Social Science Elective.....	3	(0)	(3)
		Elect one of the following:			
†BUS	115	Business Statistics.....	(3)	(0)	(3)
BUS	224	Business Finance.....	(3)	(0)	(3)
BUS	245	Management: A Behavioral Approach.....	(3)	(0)	(3)
BUS	249	Personnel Management.....	(3)	(0)	(3)
BUS	262	Small Business Management.....	(3)	(0)	(3)
CST		A programming language course.....	(2)	(2)	(3)
			16-17	3-5	18

Spring Semester			
BUS 201	Intermediate Accounting II.....	4	0 4
BUS 206	Cost Accounting II or.....	4	0 4
BUS 207	Managerial Accounting		
SPK 102	Effective Speaking.....	3	0 3
	Social Science Elective.....	3	0 3
	Elect 1 of the following:		
BUS 206	Cost Accounting II.....	(4)	(0) (4)
BUS 224	Business Finance.....	(3)	(0) (3)
BUS 245	Management: A Behavioral Approach.....	(3)	(0) (3)
BUS 249	Personnel Management.....	(3)	(0) (3)
BUS 262	Small Business Management.....	(3)	(0) (3)
BUS 270	Decision Making.....	(3)	(0) (3)
BUS 295	Accounting Seminar.....	(4)	(0) (4)
CST	A programming language course.....	(2-4)	(0-2) (3-4)
		16-18	0-2 17-18

† This course is a prerequisite for BUS 270 Decision Making

Spring Semester					
BUS 249	Personnel Management	3	0	3	
BUS 224	Business Finance	3	0	3	
BUS 152	Selling Fundamentals	3	0	3	
	Mathematics or Science Elective	3-4	0-3	3-4	
	#Business Elective	3-4	0	3-4	
		15-17	0-3	15-17	

Suggested Business Electives include such American Institute of Banking (AIB) courses as Analyzing Financial Statements, Installment Credit, Principles of Bank Operations, as well as BUS 297 Co-operative Work Experience.

MANAGEMENT

FIRST YEAR Fall Semester

			Credits	
			Hours per Week	per
			Class	Lab
			Semester	
BUS 100	Accounting I.....	4	0	4
BUS 112	Quantitative Business Methods.....	2	0	2
BUS 118	Business Law I.....	3	0	3
BUS 141	Marketing.....	3	0	3
ENG 110	Written Expression I.....	3	0	3
			15	0
			15	

Spring Semester

BUS 101	Accounting II.....	4	0	4
BUS 120	Business Law II.....	3	0	3
ENG 120	Written Expression II.....	3	0	3
PHS	Physical Science.....	3	3	4
Students may choose PHS 113, 114, 115 or 116				
MAT 139	Algebra.....	4	0	4
			17	3
			18	

SECOND YEAR Fall Semester

BUS 115	Business Statistics.....	3	0	3
BUS 224	Business Finance.....	3	0	3
BUS 245	Management: A Behavioral Approach.....	3	0	3
CST 110	Introduction to Data Processing.....	3	0	3
SPK 102	Effective Speaking.....	3	0	3
ECO 110	Micro-Economics.....	3	0	3
			18	0
			18	

Spring Semester

BUS 152	Selling Fundamentals.....	3	0	3
BUS 270	Decision Making.....	3	0	3
BUS 249	Personnel Management.....	3	0	3
ECO 111	Macro-Economics.....	3	0	3
Elect 1 of the following:				
CST 118	Computer Programming— COBOL.....	(2)	(2)	(3)
CST 120	Computer Programming— FORTRAN.....	(2)	(2)	(3)
	Business Elective.....	(3)	(0)	(3)
			14-15	0-2
			15	

MARKETING

FIRST YEAR Fall Semester

			Credits	
			Hours per Week	per
			Class	Lab
			Semester	
BUS 100	Accounting I.....	4	0	4
BUS 112	Quantitative Business Methods.....	2	0	2
BUS 118	Business Law I.....	3	0	3
BUS 141	Marketing.....	3	0	3
ENG 110	Written Expression I.....	3	0	3
			15	0
			15	

Spring Semester

BUS 120	Business Law II.....	3	0	3
BUS 249	Personnel Management.....	3	0	3
ENG 120	Written Expression II.....	3	0	3
PSY 110	Psychology.....	3	0	3
SPK 102	Effective Speaking.....	3	0	3
			15	0
			15	

SECOND YEAR Fall Semester

BUS 229	Advertising.....	4	0	4
CST 110	Introduction to Data Processing.....	3	0	3
BUS 152	Selling Fundamentals.....	3	0	3
PHS 111	Physical Science for Today.....	2	2	3
BUS	Business Elective.....	3-4	0	3-4
ECO 110	Micro Economics or.....	3	0	3
SOC 110	Introduction to Sociology.....	3	0	3
			18-19	2
			19-20	

Spring Semester

BUS 129	Consumer Behavior.....	3	0	3
BUS 259	Business Report Writing.....	3	0	3
BUS 242	Marketing Seminar.....	3	0	3
BUS 245	Management: A Behavioral Approach.....	3	0	3
BUS 264	Retailing.....	3	0	3
	Mathematics or Science Elective.....	3-4	0-3	3-4
			18-19	0-3
			18-19	

CHEMICAL ENGINEERING TECHNOLOGY

DEPARTMENT CHAIRMAN, Dr. Harold H. Trimm
Science Building, Room 108, Telephone 771-5009

The Chemical Engineering Technology curriculum is designed to meet the increasing demand for chemical technicians. Graduates are qualified for immediate gainful employment. Many of them have also continued their studies toward advanced degrees in chemistry at the junior level either as full-time students or on a part-time basis while employed. With additional physics and mathematics, some graduates have also continued their studies in chemical engineering. This background makes the Chemical Engineering Technology graduate highly sought after by employers and concurrently affords them the flexibility to advance academically and professionally.

Chemical technicians of both sexes have filled a vital manpower need in companies and organizations where background in various areas of chemistry is necessary or desirable. The constant development of new products, for example, creates a demand for chemical technicians.

Employers of chemical technicians include IBM (Endicott, Vermont,

Manassas and Austin), Anitec, GE (Westover and Schenectady), Norwich-Eaton Pharmaceuticals, Sandia, Hadco, Bendix, Chenango Industries, Eastman Kodak, Union Carbide, Grumman Aerospace, Sandoz Pharmaceuticals and many other industrial firms as well as government agencies, hospitals and educational institutions.

Initial positions are usually in a research, development, process, quality control or analytical laboratory or in a pilot plant. In these positions a chemical technician may work for a senior staff member or be a member of a group working in a particular area. Experienced chemical technicians have become supervisors, group leaders, technical salesmen and research and development technicians.

The 1984 graduates of this program averaged \$17,706 in starting salaries ranging from \$24,000 to \$16,000.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), and it leads to an Associate in Applied Science degree.

FIRST YEAR Fall Semester

			Hours per Week		Credits
			Class	Lab	per Semester
ENG	110	Written Expression I.....	3	0	3
CHM	161	Chemistry.....	3	3	4
*MAT	141	Algebra and Trigonometry.....	4	0	4
†PHY	141	Physics.....	3	2	4
			13	5	15

Spring Semester

ENG	150	Technical Writing.....	3	0	3
CHM	162	Chemistry.....	3	3	4
*MAT	142	Applied Calculus I.....	4	0	4
†PHY	142	Physics.....	3	2	4
CST	140	Computer for Chemists.....	2	2	3
			15	7	18

SECOND YEAR Fall Semester

CHM	261	Organic Chemistry.....	3	6	5
CHM	265	Analytical Chemistry.....	3	6	5
CHM	271	Chemical Processes.....	3	4	5
		Social Science Elective.....	3	0	3
			12	16	18

Spring Semester

CHM	262	Organic Chemistry.....	3	6	5
CHM	266	Analytical Chemistry.....	3	6	5
CHM	272	Chemical Processes.....	3	4	5
		Social Science Elective.....	3	0	3
			12	16	18

GRADUATION REQUIREMENT: 69 CREDITS

*or MAT 181-182 Calculus with Analytic Geometry I and II

†or PHY 161-162 Physics



Two students performing an experiment in the College's Unit Operations Laboratory.

CHILD CARE

DEPARTMENT CHAIRMAN, Francis J. Short
Department of Special Career Programs
Mechanical Building, Room 214
Telephone 771-5087

COORDINATOR: Marilyn Schafer
Mechanical Building, Room 219, Telephone 771-5029

This Child Care program leads to an Associate in Applied Science (AAS) degree and is designed to prepare graduates for immediate employment or, in the case of those students who are already working in the Child Care field when they enroll, to improve their capabilities and increase their opportunities for advancement. It is open to students on both a full-time and part-time basis.

The starting salary for graduates of the AAS degree program in Child Care who go to work immediately after graduation as aides or assistant teachers varies between \$4 and \$5 per hour. Directors' positions usually require a baccalaureate degree with an average salary of \$14,000 to \$17,000 a year. Two-year college graduates sometimes become direc-

tors with an additional salary which will vary with teachers' salaries.

A professional portfolio of materials pertaining to the education of young children is required of all students in the program. Assistance is provided in all classes for development of this material.

PLEASE NOTE

The curriculum display shown here is for full-time students, and they should be aware that careful advisement is necessary to enable them to be properly scheduled in this program to complete the work in two years. *Anyone interested in enrolling as a full-time student should, therefore, consult with the coordinator or department chairman first.* The curriculum display for part-time students appears on page 65.

FIRST YEAR Fall Semester

Fall Semester			Hours per Week		Credits
			Class	Lab	per Semester
ENG	110	Written Expression I.....	3	0	3
PSY	110	General Psychology.....	3	0	3
SOC	110	Introduction to Sociology.....	3	0	3
*CDC	110	Introduction to Education of Young Children.....	2	2	3
†CDC		Child Care Elective.....	2-3	0-2	3
			13-14	2-4	15

Spring Semester

ENG		English or Literature Elective.....	3	0	3
PSY	211	Child Development.....	3	0	3
*CDC	120	Curriculum Development.....	2	2	3
		Humanities Elective.....	3	0	3
‡Related		Elective.....	3	0	3
		14	2	15	

SECOND YEAR Fall Semester

*CDC	170	Practicum I.....			3
†CDC		Child Care Elective.....	2-3	0-2	3
		Math/Science Elective.....	3-4	0-3	3-4
†CDC		Child Care Elective.....	2-3	0-2	3
‡Related		Elective.....	3	0	3
		10-13	0-7	15-16	

Spring Semester

*CDC	240	Social Development of Young Children.....	2	2	3
*CDC	290	Practicum II.....			6
†CDC		Child Care Elective.....	2-3	2-0	3
		Math/Science Elective.....	3-4	0-3	3-4
		7-9	2-7	15-16	

*CDC COURSES ARE GIVEN MAINLY IN THE EVENING.

†CDC electives may be taken from among CDC 115 Music for Young Children, CDC 140 Art for Young Children, CDC 150 Motor Development, CDC 160 Nutrition for Young Children, CDC 180 Child Health and Safety, CDC 210 Special Problems in Children, CDC 220 Trends in Education of Young Children, CDC 230 Working with Parents in Nursery Programs, CDC 250 Language in Early Childhood, LIT 263 Children's Literature, CDC 190 Infants, Toddlers and the Family.

‡Related electives may be taken from among PSY 212 Adolescent Development, PSY 214 Abnormal Psychology, PSY 217 Counseling and Interviewing, PSY 227 Behavior Modification, SOC 210 Crime and Deviant Behavior, SOC 230 Marriage, Family and Divorce, SAC 101 The Individual in a Changing Environment, SAC 295 Seminar in Human Potential or from other disciplines.

The Civil Engineering Technology curriculum at Broome Community College is designed to prepare graduates for technical positions in the civil engineering and construction industries. The primary objective of the program is to train engineering technicians who will work for civil engineers, heavy and building contractors, surveyors and architects.

Starting positions may be in computer-aided design (CAD), drafting design, estimating, testing of materials, specification writing, construction inspection, surveying, field engineering, sales and insurance adjusting. Excellent opportunities exist for advancement and promotion.

Starting salaries in 1984 averaged \$12,850 and ranged from \$15,600 to \$11,500.

The Civil Engineering Technology Department offers the Associate in Applied Science degree in Civil Engineering Technology. This degree

CIVIL ENGINEERING TECHNOLOGY

DEPARTMENT CHAIRMAN, Edward F. Dougherty
Mechanical Building Room 117
Telephone 771-5223

is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Graduates of the program are eligible to become certified as Associate Engineering Technicians by the Institute for the Certification of Engineering Technicians.

Job opportunities exist locally, statewide and nationally. Large companies as well as smaller employers hire the graduates. Women graduates also find attractive job opportunities.

About 30% of the graduates transfer into Bachelor level programs.

In order for students to complete the curriculum in two years, the proper preparation is necessary. The minimum prerequisites are high school intermediate algebra, trigonometry and regents physics or their equivalents. For those wishing to enter the program without these prerequisites, Broome Community College offers the necessary preparatory courses.

Special emphasis programs within the Civil Engineering Technology curriculum can be worked out with the department chairman. These will consist of course sequences in such areas of concentration as Building and Contracting; Architectural; General Civil Engineering Technology. There are also course sequences designed for transfer to four-year colleges.

FIRST YEAR Fall Semester

		Hours per Week		Credits
		Class	Lab	per Semester
CIV 111	Surveying I.....	2	6	4
CIV 115	Engineering Drawing I.....	1	3	2
CIV 110	Introduction to Technologies.....	1	0	1/2
ENG 110	Written Expression I.....	3	0	3
†MAT 141	Algebra and Trigonometry.....	4	0	4
*PHY 141	Physics.....	3	2	4
		14	11	17 1/2

Spring Semester

CIV 112	Surveying II.....	1	3	2
CIV 117	Architectural Drafting I.....	1	3	2
CIV 124	Mechanics.....	3	0	3
†MAT 142	Applied Calculus I.....	4	0	4
PHY 142	Physics.....	3	2	4
ENG 150	Technical Writing.....	3	0	3
		15	8	18

*Students entering the program without physics may elect to take PHY 100 Preparatory Physics I during the first semester in place of PHY 141 Physics. PHY 141 Physics may be taken during the spring semester and PHY 142 Physics during the summer. This would allow the student to graduate on schedule. Preparatory Physics is not applicable toward the degree.

†Or MAT 181-182 Calculus with Analytic Geometry I and II.

SECOND YEAR Fall Semester

		Hours per Week		Credits
		Class	Lab	per Semester
CIV 215	Strength of Materials.....	4	0	4
CIV 217	Materials Testing.....	2	3	3
CST 122	Scientific Computer Programming FORTRAN.....	2	2	3
	Social Science Elective.....	3	0	3
	Technical Elective (Choose 1)			
CIV 238	Architectural Design and Building Materials.....	(2)	(3)	(3)
CAD 200	Introduction to Computer Graphics.....	(2)	(4)	(3)
*MAT	Mathematics Elective.....	(4)	(0)	(4)
		13-15	5-9	16-17

Spring Semester

†CIV 224	Reinforced Concrete Design.....	2	3	3
	or			
CIV 226	Structural Steel Design.....	3	0	3
	Social Science Elective.....			
	Technical Electives (Choose 4 courses)			
CIV 213	Route Surveying and Photogrammetry.....	(2)	(3)	(3)
CIV 236	Construction Management.....	(3)	(0)	(3)
CIV 231	Estimating and Construction Planning.....	(2)	(3)	(3)
CIV 240	Soil Mechanics.....	(2)	(3)	(3)
CIV 237	Hydraulics.....	(2)	(3)	(3)
*MAT	Mathematics Elective.....	(4)	(0)	(4)
		13-16	9-15	18-19

†Waiver of this requirement by permission of department chairman only.

*For students planning to transfer to a 4-year college. Prior approval by department chairman required.

GRADUATION REQUIREMENT: 69 1/2 CREDITS

COMPUTER STUDIES

DEPARTMENT CHAIRPERSON, Mary Diegert
Titchener Hall Room 221-F
Telephone 771-5022

The Computer Studies Department at Broome Community College offers three degree programs in the computer field—Computer Science, Data Processing and Computer Technology. The Computer Science program leads to the Associate in Science degree, while graduates of the other two receive the Associate in Applied Science degree.

In every Computer Studies program the student must learn to write well documented, easy to read, structured programs. The required structured programming language Pascal leads toward that goal.

Students who choose a career in computing must, above all else, have the ability to think logically. They should be interested in organizing and analyzing information and should be able to pay close attention to detail and accuracy. Advancement in this career requires the personal drive to explore new fields of interest and the ability to communicate with people working in these fields.

THE COMPUTER SCIENCE PROGRAM prepares students for interesting and challenging careers in systems and applications programming, mathematics, and systems analysis by providing the first two years of a four-year degree sequence. During the first semester the student selects an emphasis and is encouraged to investigate transfer colleges with a future career in mind.

The following programs are offered for the student who does not plan to transfer to a four-year college but who plans to find a job. These graduates will be competing with four-year degree graduates in the job market and are advised that they must have skills beyond computing to interest employers. Many graduates will find jobs in computer-related fields rather than as programmers.

THE DATA PROCESSING PROGRAM is business oriented. It prepares students for work in a business environment where a knowledge of computer programming is required. Students learn to use the computer to analyze and solve business problems. There is a strong emphasis on clear documentation and communication.

THE COMPUTER TECHNOLOGY PROGRAM is technically oriented. It prepares students for work in a technical environment where a knowledge of the interface between hardware and software is needed. Students learn both high level and assembly level languages. There is a strong emphasis on clear communication both written and oral.

STUDENTS CAN STUDY FOR THESE DEGREES FULL-TIME OR PART-TIME, DAY OR EVENING. Special information for part-time students on pages 62 to 70.

COMPUTER SCIENCE (Associate in Science Degree)

All students in the Computer Science curriculum should choose an emphasis after the first semester. Three emphases are shown on this and the next two pages—Business, Mathematics and Technical. The listing below summarizes the degree requirements by category.

	Credits Required
CST 113 Pascal with Structured Programming.....	5
MAT or CST Electives.....	9
Student must choose either	
CST 202 Advanced Pascal with Data Structures or	
CST 118 COBOL and CST 218 Advanced COBOL	
Mathematics.....	16
MAT 181 Calculus with Analytic Geometry I	
MAT 182 Calculus with Analytic Geometry II	
MAT 252 Mathematical Modeling with the Computer	
MAT 264 Linear Algebra	
Laboratory Science Sequence.....	8
A full year sequence of physics, chemistry or physical science. Acceptable sequences:	
PHY 161-162 Physics; PHY 181-182 Engineering Physics;	
CHM 145-146 Chemistry;	
PHS 113, 114, 115, 116 Physical Science (any 2).	
English or Literature.....	6
Social Science.....	6
Any two courses from the following disciplines: anthropology, economics, geography, political science, psychology, sociology, social science. These have ANT, ECO, GEO, POS, PSY, SOC, SOS designators.	
History.....	3
Philosophy.....	3
PHI 202 Logic	
Physical Education.....	2
Approved Electives.....	6
See emphases for recommended choices. All others must have Department Chairman approval.	

GRADUATION REQUIREMENT: 64 CREDITS

COMPUTER SCIENCE
Business Emphasis
(Associate in Science Degree)

FIRST YEAR
Fall Semester

Fall Semester			Hours per Week		Credits per Semester
			Class	Lab	
CST	113	Pascal with Structured Programming.....	4	2	5
MAT	181	Calculus with Analytic Geometry I.....	4	0	4
ENG	110	Written Expression 1.....	3	0	3
		Social Science Elective.....	3	0	3
		Physical Education Electives.....	0	2	1
			14	4	16

Spring Semester

Spring Semester					
CST	118	COBOL.....	2	2	3
MAT	182	Calculus with Analytic Geometry II.....	4	0	4
ENG	120	Written Expression II.....	3	0	3
		or			
ENG	150	Technical Report Writing.....	3	0	3
PHI	202	Logic.....	3	0	3
		Social Science Elective.....	3	0	3
		Physical Education Electives.....	0	2	1
			15	4	17

SECOND YEAR
Fall Semester

CST	218	Advanced COBOL.....	2	2	3
MAT	252	Mathematical Modeling with Computer.....			
		or.....	4	0	4
MAT	264	Linear Algebra.....	4	0	4
BUS	100	Accounting I.....	4	0	4
		Laboratory Science (begin a sequence).....	3	3	4
		History Elective.....	3	0	3
			16	5	18

Spring Semester

MAT	252	Mathematical Modeling with Computer.....	4	0	4
		or			
MAT	264	Linear Algebra.....	3	3	4
		Laboratory Science (complete sequence).....	4	0	4
BUS	101	Accounting II.....	4	0	4
		One of the following:			
CST	200	Systems Analysis 1.....	(2)	(2)	(3)
CST	126	Assembly Programming—BAL....	(2)	(2)	(3)
CST	170	Digital Logic.....	(2)	(2)	(3)
MAT	124	Statistics.....	(3)	(0)	(3)
			13-14	3-5	15

COMPUTER SCIENCE
Mathematics Emphasis
(Associate in Science Degree)

FIRST YEAR
Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
CST	113	Pascal with Structured Programming.....	4	2	5
MAT	181	Calculus with Analytic Geometry I.....	4	0	4
ENG	110	Written Expression I.....	3	0	3
		Social Science Elective.....	3	0	3
		Physical Education Electives.....	0	2	1
			14	4	16

Spring Semester

CST	202	Advanced Pascal with Data Structures	2	2	3
MAT	182	Calculus with Analytic Geometry II.....	4	0	4
ENG	120	Written Expression II.....	3	0	3
		or			
ENG	150	Technical Report Writing.....	3	0	3
PHI	202	Logic	3	0	3
		Social Science Elective.....	3	0	3
		Physical Education Electives.....	0	2	1
			15	4	17

SECOND YEAR
Fall Semester

Fall Semester					
CST	170	Digital Logic.....	2	2	3
MAT	281	Calculus with Analytic Geometry III.....	4	0	4
MAT	252	Mathematical Modeling with Computer.....			
		or	4	0	4
MAT	264	Linear Algebra.....			
PHY	161	Physics I.....	3	3	4
		History Elective.....	3	0	3
			16	5	18

Spring Semester

CST	126	Assembly Programming—BAL.....			
		or	2	2	3
CST	220	Introduction to Microprocessors....			
MAT	252	Mathematical Modeling with Computer.....			
		or	4	0	4
MAT	264	Linear Algebra.....			
MAT	266	Introduction to Higher Mathematics.....	3	0	3
PHY	162	Physics II.....	3	3	4
			12	5	14

COMPUTER SCIENCE

Technical Emphasis

(Associate in Science Degree)

FIRST YEAR Fall Semester

		Fall Semester		Credits	
		Hours per Week	Class	per Semester	
CST	113	Pascal with Structured Programming.....	4	2	5
MAT	181	Calculus with Analytic Geometry I.....	4	0	4
ENG	110	Written Expression I.....	3	0	3
		Social Science Elective.....	3	0	3
		Physical Education Electives.....	0	2	1
		14	4	16	

Spring Semester

Spring Semester					
CST	170	Digital Logic.....	2	2	3
CST	202	Advanced Pascal with Data Structures.....	2	2	3
MAT	182	Calculus with Analytic Geometry II.....	4	0	4
ENG	120	Written Expression II..... or	3	0	3
ENG	150	Technical Report Writing.....	3	0	3
PHI	202	Logic.....	0	2	1
		Physical Education Electives.....			
			14	6	17

SECOND YEAR Fall Semester

CST	124	Programming for Engineering and Computer Science.....	2	2	3
CST	220	Introduction to Microprocessors.....	2	2	3
MAT	252	Mathematical Modeling with Computer.....			
		or	4	0	4
MAT	264	Linear Algebra.....	3	3	4
PHY	161	Physics I.....	3	0	3
		History Elective.....	3	0	3
			14	7	17

Spring Semester

CST	225	Introduction to Small Systems.....	2	2	3
MAT	252	Mathematical Modeling with Computer.....	4	0	4
		or			
MAT	264	Linear Algebra.....	3	3	4
PHY	162	Physics II.....	3	0	3
		Social Science Elective.....	12	5	14



Students working on their computer programs in one of the College's Computer Terminal Rooms.

COMPUTER TECHNOLOGY (Associate in Applied Science Degree)

FIRST YEAR Fall Semester				Credits per Semester
			Hours per Week Class Lab	
CST 113	Pascal with Structured Programming.....	4	2	5
ENG 110	Written Expression I.....	3	0	3
MAT 124	Statistics.....	3	0	3
	*Laboratory Science Sequence.....	3	2-3	4
				13 4-5 15
Spring Semester				
CST 170	Digital Logic.....	2	2	3
CST 124	Programming for Engineering and Computer Science..... or	2	2	3
CST 202	Advanced Pascal with Data Structures.....	3	0	3
ENG 150	Technical Writing.....	3	0	3
SPK 102	Effective Speaking.....	3	0	3
	*Laboratory Science Sequence.....	3	2-3	4
				13 6-7 16
SECOND YEAR Fall Semester				
CST 220	Introduction to Microprocessors.....	2	2	3
CST 124	Programming for Engineering and Computer Science..... or	2	2	3
CST 202	Advanced Pascal with Data Structures..... or			
CST 205	Advanced Fortran.....			
MAT 152	Discrete Mathematics.....	4	0	4
	†Approved Elective.....	2-4	0-4	3-4
	#Social Science Elective.....	3	0	3
				13-15 4-8 16-17
Spring Semester				
CST 126	Assembly Programming—BAL.....	2	2	3
CST 222	Topics in Computer Systems.....	2	2	3
CST 225	Introduction to Small Systems.....	2	2	3
	†Approved Elective.....	2-4	0-4	3-4
	#Social Science Elective.....	3	0	3
				11-13 6-10 15-16

GRADUATION REQUIREMENT: 62 CREDITS

*A full year sequence of physics, chemistry, or physical science. Acceptable sequences: PHY 141-142 Physics; CHM 145-146 Chemistry; PHS 113, 114, 115, 116 Physical Science (any 2).

†CST 202, CST 205, MAT 181, MAT 182, CAD 200, CAD 201. Others require approval of Department Chairperson.

#Any two courses from the following disciplines: anthropology, economics, geography, political science, psychology, sociology, social science. These have ANT, ECO, GEO, POS, PSY, SOC, SOS designators.

DATA PROCESSING (Associate in Applied Science Degree)

FIRST YEAR Fall Semester				Credits per Semester
			Hours per Week Class Lab	
CST 113	Pascal with Structured Programming.....	4	2	5
ENG 110	Written Expression I.....	3	0	3
MAT 124	Statistics.....	3	0	3
BUS 100	Accounting I.....	4	0	4
				13 2 15
Spring Semester				
CST 118	COBOL.....	2	2	3
ENG 120	Written Expression II.....	3	0	3
MAT 152	Discrete Mathematics.....	4	0	4
BUS 101	Accounting II.....	4	0	4
BUS 270	Decision Making.....	3	0	3
				16 2 17
SECOND YEAR Fall Semester				
CST 200	Systems Analysis I.....	2	2	3
CST 218	Advanced COBOL.....	2	2	3
BUS 259	Business Report Writing.....	3	0	3
	*Physical Science Elective.....	3	2	4
	†Social Science Elective.....	3	0	3
				13 6 16
Spring Semester				
CST 116	RPG II.....	2	2	3
CST 201	Systems Analysis II.....	2	2	3
CST 211	Small Systems Applications.....	2	2	3
SPK 102	Effective Speaking.....	3	0	3
	†Social Science Elective.....	3	0	3
				12 6 15

GRADUATION REQUIREMENT: 63 CREDITS

*Any one of the following physical science courses:
PHS 113, 114, 115, 116

†Any two courses from the following disciplines: anthropology, economics, geography, political science, psychology, sociology, social science. These have ANT, ECO, GEO, POS, PSY, SOC, SOS designators.

**CRIMINAL JUSTICE CURRICULUM
on Page 47**

DENTAL HYGIENE

DEPARTMENT CHAIRMAN, Dr. Frederick Johnson
Science Building, Room 108
Telephone 771-5149

The Dental Hygiene curriculum is designed to prepare students for the contemporary practice of dental hygiene. The curriculum emphasizes the fundamental knowledge necessary for practice in a private dental office or similar clinical setting under the supervision of a dentist.

The dental hygienist performs various services, such as dental prophylaxis, topical fluoride applications, dental radiographs and instruction in plaque control procedures. Successful completion of the curriculum permits one to take the required written and practical licensure examinations.

Dental Hygiene graduates averaged \$15,217 as starting salaries in 1984, encompassing a range from \$16,700 to \$14,000.

Students must purchase instru-

ments and pants uniforms which range from \$400-\$450 and pay license examination fees which range from \$200-\$250, in addition to textbooks. They are also expected to purchase protective eye glasses and disposable rubber gloves for use during clinical practice.

Students who wish to pursue a career as a dental hygienist in public health, health management, health education or dental hygiene education are encouraged to transfer to a baccalaureate program after graduation.

The program is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Post-secondary Accreditation and by the United States Department of Education.

FIRST YEAR Fall Semester

			Credits	
			Hours per Week	per
			Class	Lab Semester
BIO	131	Human Biology I.....	3	2 4
DEN	101	Dental Hygiene I.....	2	6 4
DEN	103	Oral Anatomy and Physiology.....	2	4 4
ENG	110	Written Expression I.....	3	0 3
†HSV	101	Cardio-Pulmonary Resuscitation.....	0	1 ½
			10	13 15½

†This course will average out to one hour per week over the semester, but it will probably be given in clusters of 3 hours each in the evening or of 7½ hours each on Saturday to make a total of 15 hours.

Spring Semester

BIO	132	Human Biology II.....	3	2 4
DEN	102	Dental Hygiene II.....	4	8 6
DEN	106	Clinical Dental Radiography.....	1	2 2
BIO	160	Microbiology.....	2	3 3
SPK	102	Effective Speaking.....	3	0 3
			13	15 18



Dental Hygiene student performing a prophylaxis on a patient in the Dr. James T. Ivory Dental Hygiene Clinic on the campus.

SECOND YEAR Fall Semester

DEN	201	Dental Hygiene III.....	2	12 5
DEN	204	General and Oral Pathology.....	3	0 3
DEN	205	Periodontology.....	2	0 2
DEN	209	Nutrition.....	3	0 3
DEN	213	Public Health.....	2	2 3
PSY	110	General Psychology.....	3	0 3
			15	14 19

Spring Semester

DEN	202	Dental Hygiene IV.....	2	12 5
DEN	206	Dental Pharmacology.....	2	0 2
DEN	210	Dental Materials.....	2	2 3
DEN	214	Dental Specialties.....	2	0 2
SOC	110	Introduction to Sociology.....	3	0 3
			11	14 15

NOTE: Students must have completed a course in CPR (Cardio-Pulmonary Resuscitation) prior to treating patients in the Spring Semester of the Freshman Year.

ELECTRICAL ENGINEERING TECHNOLOGY

FIRST YEAR Fall Semester

DEPARTMENT CHAIRMAN, Robert Reid
Electrical Building, Room 101
Telephone 771-5017

Fall Semester				Credits per Semester	
			Class	Lab	
CST	141	Fortran Programming with Graphic Applications.....	2	2	3
EET	111	Electrical Construction Laboratory I.....	1	3	2
EET	121	Electrical Circuits.....	4	3	5
EET	100	Introduction to Electrical Engineering Technology.....	1	0	½
ENG	110	Written Expression I.....	3	0	3
*MAT	141	Algebra and Trigonometry.....	4	0	4
			15	8	17½

Spring Semester

EET	112	Electrical Construction Laboratory II.....	0	3	1
EET	130	Engineering Drawing.....	0	3	1
EET	150	Electronic Devices.....	4	3	5
EET	162	Computer Aided Network Analysis.....	3	0	3
ENG	150	Technical Writing.....	3	0	3
*MAT	142	Applied Calculus I or.....	4	0	4
*MAT	181	Calculus with Analytic Geometry I.....	14	9	17

GRADUATION REQUIREMENT: 70½ CREDITS

*Students should consult with the department chairman or his designee to determine the appropriate mathematics courses.

SECOND YEAR Fall Semester

Fall Semester			Credits per Semester		
			Hours per Week		
			Class	Lab	
EET	241	Energy Conversions and Control Systems I.....	3	3	4
EET	251	Electronic Circuitry.....	3	3	4
PHY	141	Physics.....	3	2	4
EET	267	Digital Electronics and Microprocessors I.....	3	2	4
		Social Science Elective.....	3	0	3
			15	10	19

Spring Semester

EET	230	Electronic Design and Fabrication...	0	3	1
EET	242	Energy Conversions and Control Systems II.....	4	3	5
EET	252	Electronic Systems.....	3	3	4
PHY	144	Physics II-E.....	3	2	4
		Social Science Elective.....	3	0	3
			13	11	17

The Electrical Engineering Technology program at Broome Community College is made up of a planned sequence of college level courses leading to the Associate in Applied Science Degree. Engineering Technology emphasizes both the theory and application of established scientific and engineering methods and prepares the student for immediate employment or for transfer to an upper division school upon graduation.

The graduate is prepared to be the interface between the design engineer and skilled craftsman. He/she translates problems into functioning equipment using his/her knowledge of mathematics, physics, linear and digital electronics, microprocessor hardware and software, machines, robotics, process control, circuit analysis, and computer programming languages. He/she does this whether working in a small company as the only technician or in a large company as part of a team.

Graduates work for companies like

New York State Electric and Gas, International Business Machines, Xerox, Eastman Kodak, General Electric, Universal Instruments, Singer-Link, Bell Laboratories, Savin Corporation, Raymond Corporation, Sandia National Laboratory, National Cash Register and Corning Glass.

Starting positions include engineering assistant, technical specialist for electronics, computers, field service, or sales. Starting salaries for graduates averaged \$16,933 in 1984, covering a range from \$20,000 to \$13,500.

Many graduates find that more education is desirable and have successfully completed advanced study at State University of New York Colleges at Binghamton, Utica-Rome, and Buffalo, as well as at Rochester Institute of Technology, Clarkson College of Technology and others.

The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).



Electrical Engineering Technology students working on an experiment in the College's Electrical Machines Laboratory.

ENGINEERING SCIENCE

DEPARTMENT CHAIRMAN, Jack Foster
Titchener Hall, Room 221
Telephone 771-5114

The Engineering Science curriculum is designed primarily to prepare graduates to continue their studies in the various engineering disciplines at four-year colleges and universities. The strong emphasis on mathematics and physics also allows graduates to transfer to these majors at four-year institutions, with junior-year standing. In addition, there are immediate employment possibilities for qualified graduates who wish to terminate or postpone further educational goals until a more opportune time.

Broome Community College is a member of the New York State Two-Year/Four-Year Engineering College Curriculum Study Committee. The purpose of this organization is to facilitate the transfer to four-year colleges, with junior-year standing, of two-year college graduates from engineering science programs. State University of New York at Binghamton, SUNY at Buffalo and SUNY at Stony Brook, Rensselaer Polytechnic Institute (RPI), Clarkson, Rochester Institute of Technology (RIT), Cornell, Syracuse and Union are among the members of the Study Committee who have agreed to accept those two-year college graduates who have been recommended by their En-

gineering Science departments. Feedback from these and other institutions to which Broome Community College students transfer indicates a high regard for the graduates and the quality of the Engineering Science program at BCC.

Those graduates who prefer to seek immediate employment will find job opportunities as engineering technicians or as assistants to engineers involved in research and development. In addition, employment opportunities also exist which involve the application of mathematics and computer programming.

The 1984 graduates of this program who went to work averaged starting salaries of \$13,639. These ranged from \$15,000 to \$12,500.

Students entering Broome Community College who wish to continue studying for their bachelor's degrees in engineering, applied mathematics, or physics will find the Engineering Science program the most appropriate course of study. As a reasonable guideline for successful achievement in this rigorous program, a student's course work in high school should be above the 80% level in all areas. (See page 7 for specific requirements.)

FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
CHM	145	Chemistry	3	3	4
MAT	181	Engineering Calculus with Analytic Geometry I.....	4	0	4
EGR	150	Engineering Graphics.....	1	2	2
PHY	181	Engineering Physics I.....	3	2	4
		English or Literature Elective.....	3	0	3
EGR	100	Orientation	2	0	0
			16	7	17

Spring Semester

CHM	146	Chemistry	3	3	4
CST	124	Computer Programming for Engineers.....	2	2	3
MAT	182	Engineering Calculus with Analytic Geometry II.....	4	0	4
PHY	182	Engineering Physics II.....	3	2	4
		English or Literature Elective.....	3	0	3
EGR	100	Orientation	2	0	0
			17	7	18

SECOND YEAR Fall Semester

*EGR	281	Mechanics: Statics.....	3	0	3
EGR	285	Electrical and Electronic Circuits...	3	0	3
EGR	287	Engineering Science Laboratory I...	0	3	1
MAT	281	Engineering Calculus with Analytic Geometry III.....	4	0	4
PHY	281	Engineering Physics III.....	4	0	4
PED		Physical Education Elective.....	0	2	1
		Social Science Elective.....	3	0	3
EGR	200	Orientation	2	0	0
			19	5	19

Spring Semester

*EGR	282	Mechanics: Dynamics.....	3	0	3
EGR	286	Engineering Analysis.....	1	0	1
EGR	288	Engineering Science Laboratory II...	0	3	1
MAT	282	Differential Equations with Linear Algebra.....	4	0	4
EGR	284	Materials Science.....	3	0	3
PED		Physical Education Elective.....	0	2	1
		Social Science Elective.....	3	0	3
EGR	200	Orientation	2	0	0
			16	5	16

*Organic Chemistry (CHM 261 and 262) may be substituted by students who are declared Chemical Engineering majors.

GRADUATION REQUIREMENT: 70 CREDITS

CRIMINAL JUSTICE

DEPARTMENT CHAIRMAN, Francis J. Short
Special Career Programs
Mechanical Building, Room 214
Telephone 771-5087

COORDINATOR, William F. Michalek
Mechanical Building, Room 219, Telephone 771-5029

This program is designed for full-time students desiring employment after two years of study. Careful planning and selection of courses is necessary to complete the program in two years. Consult the Criminal Justice Coordinator for specific details on selection of proper electives. Criminal Justice electives are described on pages 86 and 87, and most Criminal Justice courses are given in the evening.

FIRST YEAR Fall Semester

		Hours per Week		Credits
		Class	Lab	per Semester
ENG 110	Written Expression I.....	3	0	3
PSY 110	General Psychology.....	3	0	3
SOC 110	Introduction to Sociology.....	3	0	3
CRJ 101	Introduction to Criminal Justice.....	3	0	3
CRJ	Criminal Justice Elective.....	3	0	3
		15	0	15

Spring Semester

SPK 102	Effective Speaking.....	3	0	3
POS 201	American Political Systems.....	3	0	3
CRJ	Criminal Justice Elective.....	3	0	3
CRJ	Criminal Justice Elective.....	3	0	3
PHI	Elective in Philosophy.....	3	0	3
		15	0	15

SECOND YEAR Fall Semester

	Math/Science Elective.....	3-4	0	3-4
PSY	Elective in Psychology.....	3	0	3
SOC	Elective in Sociology.....	3	0	3
CRJ	Criminal Justice Elective.....	3	0	3
CRJ	Criminal Justice Elective.....	3	0	3
		15-16	0	15-16

Spring Semester

	Math/Science Elective.....	3-4	0	3-4
CRJ	Criminal Justice Elective.....	3	0	3
CRJ	Criminal Justice Elective.....	3	0	3
	*Free Elective.....	3	0	3
	*Free Elective.....	3	0	3
		15-16	0	15-16

*Social Sciences recommended.

INDIVIDUAL STUDIES

DEPARTMENT CHAIRMAN, Francis J. Short
Department of Special Career Programs
Mechanical Building, Room 214
Telephone 771-5087

To better meet the changing times and to provide an opportunity for students with unusual needs, Broome Community College allows **selected students** the opportunity to take a personally planned degree program. The program requires that the student develop, with an advisor, an "area of concentration." **This area of concentration must be a cohesive body of knowledge which the student can justify as having both educational and personal relevance.**

Completion of the Individual Studies Program can lead to an Associate in Science (AS) or Associate in Applied Science (AAS) degree, depending on the student's area of concentration. The AS degree program is designed for maximum transfer possibilities, and the AAS degree has better immediate employment opportunities. **Admission into the program requires development of a Plan of Studies which is approved by the department chairman. This plan is developed by the student with a specific educational or career goal in mind.**

Associate in Science Degree (60 credits)

- 30 Credits in English, Humanities, Natural Sciences, Mathematics and Social Sciences.
- 30 Credits in student's Area of Concentration

Associate in Applied Science Degree (60 credits)

- Minimum of 20 semester credits in Liberal Arts and Sciences to include:
 - 6 Credits in Humanities (maximum of 3 hours in Speech)
 - 6 Credits in Social Science
 - 8 Credits in Natural and Physical Science, including Mathematics
- 10 Credits of Technical Electives
- 30 Credits in student's Area of Concentration

For additional information contact the Department Chairman.

DIVISION OF LIBERAL AND GENERAL STUDIES

DIVISION DEAN, George Higginbottom
Titchener Hall, Room 121
Telephone 771-5031

The Division of Liberal and General Studies manages a variety of degree programs ranging from traditional Arts and Sciences concentrations, to Mental Health and Retardation, to Special Careers and Individual Studies. It also coordinates the crediting of experiential learning. Following some general information pertaining to academic advisement, each of the programs of the division is profiled.

Academic Advisement

FULL-TIME STUDENTS

Every full-time student is assigned a faculty advisor.

Students are *encouraged* to meet regularly with their advisors, and all students are *required* to complete in the presence of their advisors a Degree Advisement Contract prior to each semester's registration.

The divisional office staff is available to deal with special problems relating to academic requirements and transfer. While the faculty and staff will make every reasonable effort to help students with academic planning, students must also assume responsibility for their programs and, particularly, in familiarizing themselves with degree requirements.

PART-TIME STUDENTS

Part-time day students who intend to matriculate in a degree program sponsored by the division should come to the office (Room 121 in Titchener Hall) to be assigned academic advisors. Students not interested in a degree, but nevertheless, seeking academic advice, may do so in the Liberal Arts office. Part-time evening students will be advised by representatives from the Student Academic Advisement Center in Room 111 of The Wales Building.

Transfer

Students who have earned A.A. or A.S. degrees at Broome Community College and who intend to go on for baccalaureate degrees are guaranteed transfer to a four-year college or university of the State University of New York (SUNY). There is no guarantee, however, that students can complete all degree programs at transfer institutions in four semesters.

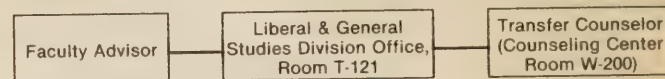
Students are urged to learn as much as they can relative to program requirements at the institution(s) to which they might transfer. For example, many four-year schools require foreign language. The decision to take a language at Broome Community College might thus be influenced by whether or not it is required at the college to which one intends to transfer.

The Liberal and General Studies Division has in force a number of guaranteed transfer arrangements with other public and private colleges. Inquiries about these agreements, some in force and some in progress, should be made in Titchener Hall, Room 121.

Career Preparation

For a great number of careers a rich background in liberal studies, as is presented in the Associate in Arts (AA) and Associate in Science (AS) degree programs, is essential. Students are urged to utilize the college resources thoroughly, and as early as possible, in locating useful information about their intended academic majors and their career aspirations.

The divisional advisement system is one which aims to match students with advisors who share their interests. If questions pertaining to career preparation, transfer opportunities and job placement cannot be answered by the faculty advisors, students will be directed to somebody who can. Key figures in the advisement picture are:



To start students thinking about a career and the preparation needed, a number of fields which suggest a liberal studies background is listed below. The college does not offer courses in all these areas, and in some cases the professional courses are taught at the junior/senior level in baccalaureate programs.

Advertising
Architecture
Art
Child Care
Communications
Community/Human Service
Computing
Counseling
Criminal Justice
Data Processing
Design
Energy Research
Environmental Affairs
Foreign Service
Government Service
Home Economics
Interior Design
International Business
Labor Relations
Library Science

Management
Medicine
Oceanography
Optometry
Personnel
Public Relations
Public Service
Publishing
Real Estate
Recreation
Social Work
Scientific Research
Sports Writing
Teaching
Technical Writing
Translating
Transportation
Travel/Tourism
Urban Planning

Communication With Students

The division maintains bulletin boards in the Titchener Hall lobby and outside the office in Titchener Hall, Room 121. Students are urged to check the boards regularly for information pertaining to academic advisement, career planning, cultural events, transfer opportunities, convocations and lectures, concerts, and the like. Important notices and messages for students will also be posted. **Check the boards!**

Liberal Arts and Sciences

The Liberal Arts curriculum is mainly a two-year university-parallel program designed especially for those who wish to continue their college education at a four-year school. Graduates of the College in its Liberal Arts program receive either the Associate in Arts or Associate in Science degrees, depending on which course of study they complete.

Students completing this curriculum, its science option or its other emphases will have a breadth of education that prepares them for many professional careers. The Science Option, for example, is excellent for those planning careers in

forestry, chemistry, biology or medicine. Those aspiring to careers in the various professions will find alternatives in the Liberal Arts curriculum designed especially for them.

Students should be aware that many of these alternative curriculums presume a high level of preparation in the secondary school, and they should consult with faculty advisors or counselors when there is doubt about the adequacy of their pre-college academic background.

Prospective academic majors in the humanities, social sciences, biological sciences and physical education are also taught and advised by divisional faculty and staff.

Associate in Arts Degree

	Credits Required		Credits Required
English.....	6	Philosophy or Foreign Language Sequence.....	6-8
ENG 110 and 120 Written Expression I and II		Students are encouraged to take both, but they must complete a year (6-8 credits) of philosophy or a foreign language sequence.	
History.....	6	Physical Education.....	2
HIS 100 Rise of the West or HIS 115 Modern Global History plus one other history (HIS) course.		No more than 2 credits can be used to fulfill degree requirements.	
Mathematics or elective (as advised).....	0-8	Literature.....	6
Students who have completed fewer than 3 units of secondary school mathematics (through Intermediate Algebra or "Course III") are required to take a minimum of 2 semesters of college level mathematics.		Any 2 LIT courses.	
Students who have completed 3 units of secondary school mathematics (through Intermediate Algebra or "Course III") are required to take one semester of college level mathematics.		Social Science.....	6
Students who have completed more than 3 units of secondary school mathematics (including Intermediate Algebra or "Course III") are not required to take additional mathematics. They may, however, elect an appropriate math course or an elective in another field.		Any 2 courses from the following disciplines: anthropology, economics, geography, political science, psychology, sociology, social sciences. These have ANT, ECO, GEO, POS, PSY, SOC, SOS designators.	
Laboratory Science.....	8	Electives.....	14-24
A full-year sequence of biology, chemistry, physics or physical science. Acceptable sequences: BIO 111-112 General Biology I and II; BIO 131-132 Human Biology I and II; BIO 150-151 Microbiology and Aquatic Biology; CHM 141-142 General Chemistry; CHM 145-146 Chemistry; PHY 161-162 Physics; PHS 113, 114, 115, or 116 Physical Science (any 2).		Selections from approved listing preceding each semester's registration. Exceptions to receive approval of Dean of the LA Division.	
		Total number of credits.....	64 minimum

Associate in Science Degree Science Option

This program is designed for students planning careers in forest biology, forest chemistry, chemistry, biology, medicine, dentistry and related fields.

	Credits Required Per Year
FIRST YEAR	
English.....	6
ENG 110 and ENG 120 Written Expression I and II	
History.....	6
HIS 100 The Rise of the West or HIS 115 Modern Global History and any other history (HIS) course.	
Mathematics.....	8
MAT 181 and MAT 182 Calculus with Analytic Geometry I and II or if a student is not prepared for these courses, he or she may take MAT 139 Algebra or MAT 140 Trigonometry or MAT 161 Pre-Calculus Mathematics first.	
2 Laboratory Science Sequences.....	16
BIO 111 and BIO 112 General Biology I and II and CHM 145 and CHM 146 Chemistry for those planning careers in medicine, veterinary medicine, dentistry, forest biology, marine biology, pharmacy or forest chemistry.	
Physical Education.....	2
Any 2 PED courses (no more than 2 credits)	
SECOND YEAR	
Literature.....	6
Any 2 LIT courses	
Social Science.....	6
Any 2 courses from the following disciplines—anthropology, economics, geography, political science, psychology, sociology, social science. These have ANT, ECO, GEO, POS, PSY, SOC and SOS designators.	
2 Laboratory Science Sequences.....	16
PHY 161 and 162 Physics and CHM 245 and 246 Organic Chemistry for those planning careers in medicine, veterinary medicine, dentistry, forest biology, marine biology, pharmacy or forest chemistry.	
Mathematics, Philosophy or Foreign Language.....	6
A student must fulfill the mathematics requirement before he or she can take a philosophy or foreign language course. If a student did not complete MAT 182 Calculus with Analytic Geometry II as a freshman, but instead took the other Mathematics courses listed above, then MAT 181 and MAT 182 should be taken now. If the student wishes to take a math course more advanced than MAT 182 and he or she has completed MAT 182, then he or she may take another mathematics course now. If the math requirement has been completed and the student does not elect to take additional mathematics, then he or she is required to take any philosophy or foreign language courses.	
Total number of credits.....	72 minimum

MODEL PROGRAMS for Liberal Arts and Sciences

Minimum Credit—64

(All Earn Associate In Arts Degree)

The selection and arrangement of courses in these models reflect the following considerations:
 1—similar programs at four-year colleges to which many BCC students transfer.
 2—exposure to basic courses in these academic major or career areas.
 3—completion of prerequisite courses in the first year.
 4—requirements under the Associate in Arts degree.

Note: Students planning careers or majors in dentistry, medicine, forest biology or chemistry, and other science areas should refer to the Associate in Science degree "Science Option" display on page 49.

THESE MODELS ARE GUIDES AND ARE FLEXIBLE.

Students with advanced placement credit and those with 3½ units of academic mathematics will be able to take additional elective courses with their advisors' approval.

Students who enter with academic deficiencies may have to take more than the minimum 64 credits to earn the Associate in Arts degree.

64 credits required for AA degree. The following Model Programs suggest how courses could be arranged to acquire these credits.

ART		DESIGN ARTS		CHILD CARE		CYTOTECHNOLOGY		COMMUNICATIONS AND MEDIA		CIVIL AND PUBLIC SERVICE		ELEMENTARY EDUCATION		MEDICAL TECHNOLOGY	
FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 110 and 120 (6)	LIT electives (6)	ENG 110 and 120 (3)	Laboratory Science sequence (8)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	Laboratory Science sequence (8)	ENG 100 and 120 (6)	LIT electives (3)	ENG 110 and 120 (6)	LIT electives (6)	ENG 110 and 120 (6)	LIT electives (6)
HIS 100 (3)	HIS electives (3)	HIS 110 and HIS elective (6)	LIT electives (6)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	HIS 100 and HIS elective (6)	LIT electives (6)	HIS 100 and HIS elective (6)	Philosophy elective (3)	HIS 100 and HIS elective (6)	Social Science electives (6)	HIS 100 and HIS elective (6)	Social Science electives (6)
MAT electives (0-8)	Sequence (8)	Philosophy or Foreign Language (6-8)	*PSY 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	MAT 119 and 120 (6)	*PSY 110 (6)	MAT 119 and 120 (6)	*PHI 206 (3)	MAT 119 and 120 (6)	Related electives (20)	MAT 119 and 120 (6)	Related electives (20)
Philosophy or Foreign Language (6-8)	Social Science electives (6)	*PHI 111 and 112 (6)	Design electives (6)	Social Science (6)	Child Care Electives (6)	Social Science (6)	Child Care Electives (6)	*LAB 124 (8)	Social Science electives (6)	*LAB 124 (8)	SOC 110, 111 (3)	*LAB 124 (8)	ECO 104, 110, 111 (3)	*LAB 124 (8)	ECO 104, 110, 111 (3)
*PHI 111 and 112 (6)	*ART 215, 216 (9)	*ART 105 (6)	*INT 101 (6)	*PSY 110 (6)	*SOC 110 (6)	*PSY 110 (6)	*SOC 110 (6)	Philosophy or Foreign Language (6-8)	*PSY 110 (6)	Philosophy or Foreign Language (6-8)	PHI 206 (3)	Philosophy or Foreign Language (6-8)	PSY 110 (3)	Philosophy or Foreign Language (6-8)	PSY 110 (3)
ART electives (12)	*ART 105 or 106 (2)	*INT 101 (6)	Physical Ed. electives (2)	*THR or MUS electives (6)	*THR or MUS electives (6)	*THR or MUS electives (6)	*THR or MUS electives (6)	MAT electives (0-6)	*PSY 110 (6)	MAT electives (0-6)	SOC 110, 111 (3)	MAT electives (0-6)	BUS 100 (3)	MAT electives (0-6)	BUS 100 (3)
*ART 115, 101 (2)	Physical Ed. electives (2)	Physical Ed. electives (2)		*THR or MUS electives (6)	*THR or MUS electives (6)	*THR or MUS electives (6)	*THR or MUS electives (6)	*MAT 124 (8)	*PSY 110 (6)	*MAT 124 (8)	BUS 245, 257 (3)	*MAT 124 (8)	BUS 245, 257 (3)	*MAT 124 (8)	BUS 245, 257 (3)
*ART 116, 140 (2)								Physical Ed. electives (2)		Physical Ed. electives (2)		Physical Ed. electives (2)		Physical Ed. electives (2)	
Total 33	Total 34	Total 32	Total 32	Total 34	Total 33	Total 34	Total 33	Total 32	Total 32	Total 32	Total 32	Total 33	Total 31	Total 36	Total 36
VISUAL ARTS		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY	
FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 110 and 120 (6)	Laboratory Science sequence (8)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)
MAT elective (6)	LIT electives (6)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)	MAT electives (0-8)	Philosophy or Foreign Language (6-8)
Philosophy or Foreign Language (6-8)	Social Science electives (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)
HIS 100 and HIS elective (6)	Visual Arts electives (12)	Social Science (6)	Child Care Electives (6)	Social Science (6)	Child Care Electives (6)	Social Science (6)	Child Care Electives (6)	Social Science (6)	Child Care Electives (6)	Social Science (6)	Child Care Electives (6)	Social Science (6)	Child Care Electives (6)	Social Science (6)	Child Care Electives (6)
Physical Ed. electives (2)	*ART 101 (6)	*PSY 110 (6)	*THR or MUS electives (6)	*PSY 110 (6)	*THR or MUS electives (6)	*PSY 110 (6)	*THR or MUS electives (6)	*PSY 110 (6)	*THR or MUS electives (6)	*PSY 110 (6)	*THR or MUS electives (6)	*PSY 110 (6)	*THR or MUS electives (6)	*PSY 110 (6)	*THR or MUS electives (6)
Visual Arts electives (6)	*ART 105, 106 (2)	*CDC 100 (6)		*CDC 100 (6)		*CDC 100 (6)		*CDC 100 (6)		*CDC 100 (6)		*CDC 100 (6)		*CDC 100 (6)	
*COM 200 (2)	*COM 203 (2)	Physical Ed. electives (2)		Physical Ed. electives (2)		Physical Ed. electives (2)		Physical Ed. electives (2)		Physical Ed. electives (2)		Physical Ed. electives (2)		Physical Ed. electives (2)	
*COM 110 (2)															
Total 32	Total 32	Total 34	Total 33	Total 34	Total 33	Total 34	Total 33	Total 34	Total 33	Total 34	Total 33	Total 34	Total 33	Total 34	Total 33
FOREST TECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY	
FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 110 and 120 (6)	Laboratory Science sequence (8)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)
MAT 139 and 140 (8)	LIT electives (6)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)
ECO 110 or 111 (3)	Social Science electives (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)
BIO 111 and 112 (8)	Visual Arts electives (12)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)
Electives (6)	*ART 101 (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)
*BIO electives (6)	*ART 105, 106 (2)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)
Total 31	Total 32	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33
FOREST TECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY		CYTOTECHNOLOGY	
FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)	FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 110 and 120 (6)	Laboratory Science sequence (8)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)	ENG 110 and 120 (6)	HIS 110 and HIS elective (6)
MAT 139 and 140 (8)	LIT electives (6)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)	BIO 111 and 112 (8)	Philosophy or Foreign Language (6-8)
ECO 110 or 111 (3)	Social Science electives (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)	CHM 145 and 146 (8)	*PSY 110 (6)
BIO 111 and 112 (8)	Visual Arts electives (12)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)	*BIO 131 and 132 (8)	*SOC 110 (6)
Electives (6)	*ART 101 (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)	150 (4)	Child Care Electives (6)
*BIO electives (6)	*ART 105, 106 (2)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)	MAT 124 (3)	*THR or MUS electives (6)
Total 31	Total 32	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33	Total 33

FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 110 and 120 (6)	Laboratory Science sequence (8)
HIS 100 and HIS elective (6)	LIT electives (6)
Philosophy or Foreign Language (6-8)	Social Science electives (6)
MAT electives (0-8)	*PSY 110 (6)
Physical Ed. electives (2)	*SOC 110 (6)
Communications/Media courses (6)	Communications/Media courses (12)
*COM 120 (2)	*COM 203 (2)
*COM 200 (2)	*COM 110 (2)
	*ENG 163 (2)
	*SPK 102 (2)
Total 32	Total 32

FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 100 and 120 (6)	LIT electives (6)
HIS 100 and HIS elective (6)	Philosophy elective (3)
*HIS 131 (3)	*PHI 206 (3)
Philosophy or Foreign Language (3-4)	Social Science elective (3)
MAT electives (0-6)	*POS 204 (3)
*MAT 124 (8)	Related electives (20)
Laboratory Science sequence (8)	ECO 104, 110, 111 (3)
Social Science elective (3)	PSY 110 (3)
*POS 201 (3)	SOC 110, 111 (3)
Physical Ed. electives (2)	BUS 100 (3)
	BUS 245, 257 (3)
Total 32	Total 32

FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 110 and 120 (6)	LIT electives (6)
HIS 100 and HIS elective (6)	*LIT 263 (6)
MAT 119 and 120 (6)	Social Science electives (6)
Laboratory Science sequence (8)	*PSY 110 (6)
Philosophy or Foreign Language (6-8)	*SOC 110 (6)
*PHI 203 and elective (6)	*GEO 110 (6)
Physical Ed. electives (1)	Physical Ed. electives (1)
	Electives (18)
	PSY 211 (6)
	*ART electives (6)
	*MUS electives (6)
	†PSY 212, 227 (6)
	†ANT 111 (6)
Total 33	Total 31

FIRST YEAR Courses (Credits)	SECOND YEAR Courses (Credits)
ENG 110 and 120 (6)	BIO 131 (4)
BIO 111 and 112 (8)	BIO 150 (4)
CHM 145 and 146 (8)	CHM 245 (5)
MAT 141 or equivalent (4)	PHY 161 (4)
HIS 100 and HIS elective (6)	Philosophy or Foreign Language (3-4)
Philosophy or Foreign Language (3-4)	Social Science electives (6)
Physical Ed. electives (1)	CHM 224 (4)
	LIT electives (6)
	Physical Ed. electives (1)
Total 36	Total 36

*THESE COURSES ARE "STRONGLY RECOMMENDED"
 †THESE COURSES ARE "RECOMMENDED"

CRIMINAL JUSTICE

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (0-8)
↑MAT 117
*MAT 124
Social Science electives (6)
*PSY 110 and SOC 110
Criminal Justice electives (6)
*CRJ 100
Physical Ed. electives (2)
Total 32

SECOND YEAR

Courses (Credits)
Laboratory Science sequence (6)
*CHM 120 and 121
Philosophy or Foreign Language (6-8)
LIT electives (6)
Criminal Justice electives (9)
Free electives (3)
*SOC 210
Total 32

FOREST MANAGEMENT

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (0-8)
*MAT 181, 182
Laboratory Science sequence (8)
*BIO 111 and 112
Physical Ed. electives (2)
Electives (8)
*CHM 145 and 146
Total 36

SECOND YEAR

Courses (Credits)
Philosophy or Foreign Language (6-8)
LIT electives (6)
Social Science electives (6)
*ECO 110 and 111
Laboratory Science sequence (8)
*PHY 161, 162
Free electives (6)
↑PSY 110, SOC 110, 111
*POS 201 or 204
Total 32

JOURNALISM

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (0-8)
Philosophy or Foreign Language (6-8)
*Foreign Language
Physical Ed. electives (2)
Journalism electives (6)
*ENG 163
*COM 100
Total 32

SECOND YEAR

Courses (Credits)
Laboratory Science sequence (8)
LIT electives (6)
Social Science electives (6)
Journalism electives (12)
*ENG 164
*ENG 165
↑COM 110
↑SPK 102
↑COM 120, 121
Total 32

PHYSICAL THERAPY

(For Transfer to Upstate Medical Center
"B" grades in all required courses)

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
MAT 161
(181 recommended)
BIO 111 and 112 (4)
CHM 145 and 146 (8)
HIS 100 and HIS elective (6)
Total 32

SECOND YEAR

Courses (Credits)
PHY 161 and 162 (8)
PSY 110 and 211 (6)
SOC 110 (3)
HIS elective (3)
Philosophy or Foreign Language (6-8)
LIT electives (6)
Physical Ed. electives (2)
Total 34

PHYSICAL EDUCATION/RECREATION

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (0-6)
Philosophy or Foreign Language (6-8)
*PHI 203 and elective
PED 132 (2)
Related electives (0-6)
*PSY 110
*ART, MUS, THR, SPK
Total 32

SECOND YEAR

Courses (Credits)
LIT electives (6)
Social Science electives (6)
*PHY 110
*PSY 211 or 212
Laboratory Science sequence (8)
*BIO 131, 132
Related electives (12)
Total 32

THEATER

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (0-6)
Philosophy or Foreign Language (6-8)
Physical Ed. electives (2)
Theater electives (6)
*THR 190
*THR 111, 112
*THR 221
Total 32

SECOND YEAR

Courses (Credits)
Laboratory Science sequence (8)
LIT electives (6)
*LIT 230, 233
Social Science elective (6)
*PSY 110
Theater electives (12)
*THR 190
*THR electives
Total 32

LANDSCAPE ARCHITECTURE

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (0-8)
*MAT 139, 140
Laboratory Science sequence (8)
*BIO 111, 112
Philosophy or Foreign Language (3-4)
Physical Ed. electives (2)
Total 32

SECOND YEAR

Courses (Credits)
LIT electives (6)
Social Science electives (6)
Philosophy or Foreign Language (3-4)
Related courses (18)
*CIV 115
*CIV 111
*CST 110
*PHS 116
↑PHY 161
↑MAT 181, 182
↑INT 101
Total 32

MUSIC

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 (3)
MAT electives (0-6)
Philosophy or Foreign Language (6-8)
*Italian or
↑PHI 111, 112
Physical Ed. electives (1)
Music electives (10)
*Music Ensemble
MUS 190 MUS 192
MUS 193 MUS 194
MUS 195 MUS 196
*Applied Music
MUS 197 MUS 198
*Music Theory
MUS 105 MUS 106
Total 32

SECOND YEAR

Courses (Credits)
Laboratory Science sequence (8)
History elective (3)
LIT electives (6)
Social Science electives (6)
*ANT 111
Physical Ed. electives (1)
Music electives (7)
*Music Ensemble (7)
MUS 190 MUS 192
MUS 193 MUS 194
MUS 195 MUS 196
*Applied Music
MUS 297 MUS 298
*Introduction To Music
MUS 101
(Additional courses)
MUS 180, MUS 185
Total 32

SPECIAL EDUCATION

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (6)
*MAT 113, 119
Laboratory Science sequence (8)
*BIO 131, 132
Social Science elective (3)
*PSY 110
Philosophy or Foreign Language (3-4)
*PHI 203
Total 32

SECOND YEAR

Courses (Credits)
LIT electives (6)
Philosophy or Foreign Language (3-4)
*PHI elective
Social Science elective (3)
*PSY
Physical Ed. electives (2)
Related electives (18)
*PSY electives
*MUS, THR, ART
*HUS 120
Total 32

*THESE COURSES ARE "STRONGLY RECOMMENDED"
↑THESE COURSES ARE "RECOMMENDED"

BUSINESS

(For Transfer to Baccalaureate Programs in Business)

This model is appropriate for transfer to
SUNY Binghamton School of Management

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
*MAT 124 and 146
or 181
Philosophy or Foreign Language (6-8)
Physical Ed. electives (2)
Business electives (3)
*BUS 110 (3)
*BUS 118 (3)
Total 32-34

SECOND YEAR

Courses (Credits)
LIT electives (6)
Laboratory Science sequence (8)
ECO 110 and 111 (6)
Business electives (6)
*BUS 100 and 101 (6)
*BUS 245 or 257 (3)
↑CST 100, 110, 118, 120 (1-3)
Total 34

MUSEUM CAREERS

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 (3)
MAT electives (0-6)
*MAT 124
Philosophy or Foreign Language (6-8)
*Foreign Language
Physical Ed. electives (2)
Electives (7-10)
*ART 101, 105
*PHI 111/112
Total 32

SECOND YEAR

Courses (Credits)
HIS elective (3)
Laboratory Science sequence (8)
LIT electives (6)
Social Science electives (6)
*ANT 110/111
↑PSY 110
↑SOC 110
Electives (9)
*INT 101, *ART 106
↑BUS 100, ↑ECO 110
Total 32

PRE-LAW

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and HIS elective (6)
MAT electives (0-8)
Laboratory Science sequence (8)
Foreign Language or Philosophy (6-8)
Total 32

SECOND YEAR

Courses (Credits)
LIT electives (6)
Social Science electives (6)
Electives (18)
POS 201, 204
ECO 110, 111, 104
SOC 110, 111
HIS 130, 131
PSY 110
BUS 100
PHI 201, 206, 202
ART, MUS, THR
Physical Ed. electives (2)
Total 32

PUBLIC HISTORY

FIRST YEAR

Courses (Credits)
ENG 110 and 120 (6)
HIS 100 and 131 (6)
MAT electives (0-8)
*MAT 124
Philosophy or Foreign Language (6-8)
Physical Ed. electives (2)
Electives (3-9)
*HIS 175
*POS 201
*POS 204
Total 32

SECOND YEAR

Courses (Credits)
LIT electives (6)
*LIT 210, 211, 230
Social Science electives (6)
*POS 201, 204
*PSY 110, SOC 110
Laboratory Science sequence (8)
Electives (12)
*SOC 120
*HIS 130, 170, 180
*SOS 120, 130
↑ECO 110, 111
Total 32

(Freshman year BCC, Sophomore year at:)

DELHI A&T

General Agriculture
Animal Husbandry-Dairy
CANTON A&T
Dairy & Food Service
Mortuary Science
Details in Titchener Hall, Room 121

WANAKENA

See Forest Technology
Model Program
PAUL SMITHS COLLEGE
Hotel Management

Mental Health & Retardation Emphasis (Social Work) (Associate in Science Degree)

COORDINATOR, Charles Croll
Room 205, Y Building Telephone 771-5110

This course of study is mainly for students who wish to transfer to upper division degree programs in mental health and human services, and for those already in entry level positions in appropriate public and private agencies. Broad preparation during the first year is followed by greater concentration during the second year.

The number of students permitted to enter the second year of the program is limited by the availability of field placement openings in local agencies. Selection will take place during the spring semester of the Freshman year. Students who do not qualify can still complete A.A. degree requirements within the normal two-year period. For further details inquire at the Liberal and General Studies Division office in Titchener Hall (Room 121).

FIRST YEAR Fall Semester

			Credits
ENG	110	Written Expression I.....	3
MAT		(MAT 124 Statistics recommended).....	3-4
HIS	100	Rise of the West.....	3
		Laboratory Science (BIO 131 Human Biology I recommended).....	4
PSY	110	General Psychology.....	3
PED		Physical Education Elective.....	1
			17-18

Spring Semester

ENG	120	Written Expression II.....	3
SOC	110	Introduction to Sociology.....	3
		Laboratory Science (BIO 132 Human Biology II recommended).....	4
HIS	186	Modern American Social History.....	3
		Liberal Arts Elective or Mathematics.....	3
PED		Physical Education Elective.....	1
			17

SECOND YEAR Fall Semester

			Credits
PSY	223	Intelligence and the Mentally Retarded.....	3
PSY	217	Counseling and Interviewing.....	3
		English or Humanities Elective.....	3
SOS	288	Seminar in Community Social Service Organizations.....	3
		†Liberal Arts Elective.....	3
			15

Spring Semester

PSY	227	Behavior Modification.....	3
PSY	214	Abnormal Psychology.....	3
		†Liberal Arts Elective.....	3
SOS	290	Social Science Field Work*.....	3
PHI		Philosophy elective.....	3
			15

* This internship experience generally involves 6 hours a week in such agencies as Binghamton Psychiatric Center, Broome Developmental Center, Association for Retarded Children, Broome County Social Services, Broome County Office for the Aging, PROBE, Planned Parenthood, Wilson Memorial Hospital Extended Care.

† Students receiving credit for SOS 150 Introduction to Human Service Work may be able to use those credits for 6 of the 12 required in the program from Liberal Arts electives. These electives may not be used in any other program.

NOTE— Students interested in an emphasis in Social Work may substitute sociology or other approved electives.

LIBERAL AND GENERAL STUDIES

SPECIAL CAREER PROGRAMS

DEPARTMENT CHAIRMAN, Francis J. Short
Mechanical Building, Room 214
Telephone 771-5087

CHILD CARE

Coordinator, Marilyn J. Schafer
Mechanical Building, Room 219
Telephone 771-5029
Page 38

CRIMINAL JUSTICE

Coordinator, William F. Michalek
Mechanical Building, Room 219
Telephone 771-5029
Page 47

FIRE PROTECTION TECHNOLOGY

Coordinator, Anthony J. Winkler
Mechanical Building, Room 214
Telephone 771-5094
Page 68

INDUSTRIAL SAFETY AND OCCUPATIONAL HYGIENE

Coordinator, Francis J. Short
Mechanical Building, Room 214
Telephone 771-5087
Page 97

PARALEGAL ASSISTANT

Coordinator, Matthew A. Vitanza
Mechanical Building, Room 214
Telephone 771-5094
Page 68

INDIVIDUAL STUDIES

Coordinator, Francis J. Short
Mechanical Building, Room 214
Telephone 771-5087
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MANAGEMENT AND MARKETING PROGRAMS

Leading to Associate in Applied
Science Degree on Page 36

MECHANICAL ENGINEERING TECHNOLOGY

DEPARTMENT CHAIRMAN, Appointment Pending
Mechanical Building, Room 117
Telephone 771-5023

The continuing thrust for faster and more economical manufacturing methods, more reliable systems and the need for new, clean and consistent sources of energy has generated an increased demand for mechanical engineering technicians with a high degree of technical competence.

The curriculum outline of courses encompasses a blend of mathematics, science, English, social science and technical specialties conceived to generate the necessary background for a variety of entry positions in Mechanical Engineering Technology. These entry positions usually align closely with and support mechanical engineering or related functions.

Recent graduates have been employed in areas of design-drafting, product design, quality control, metallurgy, heat-power, purchasing, sales, technical writing, system

maintenance and computer-aided design. Job opportunities exist both locally and nationally, and starting salaries for 1984 graduates ranged between \$18,720 and \$12,900 with an average of \$16,486.

Mechanical Engineering Technology is a particularly lucrative field for the female. Although few have ventured into the field, those who have are highly successful.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

State University of NY at Binghamton offers an ABET-accredited Bachelor of Technology program, for which the normal admission requirement is an AAS degree in an engineering technology discipline such as Mechanical Engineering Technology.



A Mechanical Engineering Technology instructor working with a student in the campus Manufacturing Processes Laboratory.

FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
MET	110	Introduction to Technologies.....	1	0	½
*MAT	141	Algebra and Trigonometry.....	4	0	4
MET	115	Engineering Graphics.....	1	2	2
MET	121	Manufacturing Processes I.....	2	2	3
PHY	141	Physics.....	3	2	4
ENG	110	Written Expression 1.....	3	0	3
		Social Science Elective.....	3	0	3
			17	6	19½

Spring Semester

*MAT	142	Applied Calculus 1.....	4	0	4
CST	122	Scientific Computer Programming - FORTRAN.....	2	2	3
MET	122	Manufacturing Processes II.....	1	3	2
MET	132	Applied Mechanics.....	4	0	4
PHY	142	Physics.....	3	2	4
ENG	150	Technical Writing.....	3	0	3
			17	7	20

SECOND YEAR Fall Semester

CAD	200	Introduction to Computer Graphics.....	2	4	3
EET	183	Electricity.....	2	3	3
MET	235	Strength of Materials.....	2	3	3
MET	241	Fluid Mechanics and Thermodynamics.....	2	3	3
MET	261	Engineering Statics, Quality Control and Reliability.....	2	2	3
		Social Science Elective.....	3	0	3
			13	15	18

Spring Semester

EET	186	Electronics.....	2	3	3
MET	238	Mechanical Design.....	3	3	4
MET	252	Engineering Materials and Industrial Processes.....	3	3	4
MET	244	Thermodynamics.....	2	3	3
		† Technical Elective.....	(2-3)	(2-0)	(3)
			10-13	12-14	14-17

* Or MAT 181-182 Calculus with Analytic Geometry I and II.

† Selection based on student interest and department approval.

GRADUATION REQUIREMENTS: 71 1/2 CREDITS

MEDICAL ASSISTANT

DEPARTMENT CHAIRPERSON, Mary Schum
Cecil C. Tyrrell Library, 2nd Floor, Room 210
Telephone 771-5128

A Medical Assistant is one of the most versatile of all the allied health professionals. There is a variety of job opportunities available for individuals with associate degrees. These are in physicians' offices, medical centers, clinics, hospitals, armed services, laboratories and pharmaceutical companies. One can also find employment in public, industrial, school, and correctional health departments, as well as in the fields of research, publishing and teaching. A medical assistant can continue education in such fields as allied health services, health care management, and teaching. The program is designed to enable graduates to do both administrative assisting and clinical/laboratory assisting.

By studying such specifically related subjects as medical assisting procedures, clinical laboratory procedures and human biology, students can acquire the knowledge and techniques to prepare patients for examinations and assist the physician. These courses also prepare them to perform not only routine medical procedures but also electrocardiography, audiography, urinalysis and hematological tests.

Courses in medical terminology,

typewriting, transcription and medical office management prepare the student to conduct the business and administrative duties. English, social sciences, psychology and medical law are included to provide a general background.

Directed Practice supplements the campus segment of the curriculum, as senior students participate in an externship program that requires a working experience in physicians' offices or other health care facilities.

The curriculum is accredited by the Committee on Allied Health Education and Accreditation in collaboration with the American Medical Association (AMA) and the American Association of Medical Assistants (AAMA). Graduates are awarded the Associate in Applied Science degree and may elect to take an examination given by the AAMA to become Certified Medical Assistants. This CMA status is recognized throughout the country and can lead to better job opportunities and higher salaries.

Starting salaries of graduates of the program in 1984 averaged over \$10,047 and ranged between \$14,560 and \$7,500, and fringe benefits often include free medical care including medications.

FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
BIO	131	Human Biology I.....	3	2	4
ENG	110	Written Expression I.....	3	0	3
MDA	102	Medical Assisting Science.....	2	0	2
MDA	114	Standard First Aid and Personal Safety; Management of Emergencies.....	0	2	1
MRT	105	Medical Terminology.....	2	0	2
*SEC	101	or 102 Typewriting.....	2	3	3
†HSV	101	Cardio-Pulmonary Resuscitation.....	0	1	½
			12	8	15½

* Based on placement test

† This course will average out to one hour per week over the semester, but it will probably be given in clusters of 3 hours each in the evening or of 7½ hours each on Saturday to make a total of 15 hours.

Spring Semester

BIO	132	Human Biology II.....	3	2	4
MDA	115	Medical Assisting Procedures I.....	3	2	4
MDA	106	Medical Correspondence and Communications.....	0	4	2
MRT	115	Medical Terminology.....	2	0	2
SPK	102	Effective Speaking or.....	3	0	3
ENG	120	Written Expression II.....	11	8	15

SECOND YEAR Fall Semester

CST	105	Understanding Computers.....	2	2	3
MDA	206	Medical Office Management.....	3	3	4
MDA	208	Medical Law, Ethics and Economics.....	3	0	3
#MDA	211	Medical Assisting Procedures II.....	2	4	4
PSY	110	Psychology.....	3	0	3
			13	9	17

Spring Semester

MDA	201	Medical Assisting Procedures III.....	2	4	4
MDA	245	Directed Practice.....	1	16	5
MDA	210	Pharmacology.....	2	0	2
SOC	110	Introduction to Sociology.....	3	0	3
			8	20	14

It is strongly recommended that this course be taken the semester before MDA 245 Directed Practice.

MEDICAL LABORATORY TECHNOLOGY

DEPARTMENT CHAIRPERSON, Julia Peacock
901 Front Street
Telephone 771-5151

Medical Technology in general is a health profession which combines the best of several worlds. In this field, the basic sciences of Biology and Chemistry are merged with Medicine. Medical Technologists and Medical Laboratory Technicians perform biological and/or chemical tests in search of diagnostic clues as evidence of health or disease.

In the search for data on a patient's health, people working in this field may examine specimens through a microscope or perform, for example, the tests necessary to match a donated unit of blood to a patient in need of that unit. Or, they may identify the microorganisms associated with health and disease. They are also competent operators of the computers and complex electronic instrumentation which are used in most areas of today's laboratories.

Although they usually spend less time with patients than physicians and other health professionals, the Medical Technologist and Technician

play a vital role in patient care.

In many laboratories, the Medical Technologist or Technician performs the full range of laboratory testing in all five major areas of the laboratory, which are Hematology, Immunology, Microbiology, Blood Banking, and Chemistry. In other laboratories, the technologist or technician can choose to "specialize" or concentrate study and work in only one of the areas listed.

While entry to the field may be accomplished at the Medical Laboratory Technician (A.A.S. degree) level, a technician may choose to continue to advance, by education or experience, to the B.S. level, as a Medical Technologist, or as a specialist in any one of the five areas they choose. Because of this diversity, many technicians find advancement in their profession well within their grasp.

Approximately two-thirds of practicing technologists work in hospital laboratories. Others are employed in

physicians offices, clinics, commercial firms such as pharmaceutical companies, all types of research facilities, the armed forces, public health centers and in veterinary clinics. Many are teachers or serve in managerial positions. Still others are representatives for commercial suppliers or work in product development for those companies.

Wherever they work, the technicians and technologists in this field share a strong desire to help others, a

love of challenge and responsibility, and the ability to complete a wide variety of scientific tests accurately and reliably.

This program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA), as recommended by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Pre-admission advisement is recommended.

SECOND YEAR Fall/Spring Semester

		Hours per Day		Prac	No. of	Credits
		Class	Lab	Total	Weeks	per Semester
MLT 201	Hematology/Coagulation	2	4	0	3	3
MLT 201P	Hematology/Coagulation Practicum	0	0	30	3	3
MLT 202	Urinalysis/Body Fluids..	2	4	0	1	1
MLT 202P	Urinalysis/Body Fluids Practicum	0	0	40	1	1
MLT 203	Microbiology	3	3	0	5	6
MLT 203P	Microbiology Practicum	0	0	40	2	2
MLT 204	Phlebotomy	0	0	38	*	1
						17

*Students will be gaining experience in Phlebotomy over a 3-week period.

NOTE—All classes, laboratories and practicum sessions (Prac) in the courses listed above and below meet every school day for the number of weeks indicated. Practicum sessions will be in area participating hospitals. One group of students will take the courses listed immediately above in the fall and those below in the spring. The other group will take the above courses in the spring and those listed below in the fall.

Fall/Spring Semester

		Hours per Day		Prac	No. of	Credits
		Class	Lab	Total	Weeks	per Semester
MLT 205	Immunology	2	4	0	3	4
MLT 206	Immunohematology	2	4	0	2	2
MLT 206P	Immunohematology Practicum	0	0	35	2	2
MLT 207	Clinical Chemistry	2	4	0	5	5
MLT 207P	Clinical Chemistry Practicum	0	0	35	3	3
CHM	Instrumental Analysis..	†				2
						18

†Students taking Instrumental Analysis will meet for 15 class hours and 45 laboratory hours over the 15-week semester.

TOTAL CREDITS IN CURRICULUM: 71

FIRST YEAR Fall Semester

		Hours per Week		Credits
		Class	Lab	per Semester
BIO 131	Human Biology I	3	2	4
CHM 131	General Chemistry I	3	3	4
ENG 110	Written Expression I	3	0	3
MAT 125	Statistics I Using Computer	3	1	3
MLT 110	Introduction to Medical Laboratory Technology	1	0	1
	Social Science Elective	3	0	3
		16	6	18

Spring Semester

BIO 132	Human Biology II	3	2	4
CHM 132	General Chemistry II	3	3	4
CHM 133	Survey of Organic Chemistry	3	4	4
	Social Science Elective	3	0	3
ENG 120	Written Expression II or	3	0	3
SPK 102	Effective Speaking			
		15	9	18

MEDICAL RECORD TECHNOLOGY

DEPARTMENT CHAIRPERSON, Mary Rosato
Business Building, Room 031
Telephone 771-5051

A medical record is the permanent report of a person's illness or injury kept to preserve information of medical, scientific and legal value. The record includes all medical reports which describe how the patient's illness was diagnosed and treated. Medical records are needed to help doctors diagnose and treat future illness, to verify insurance claims, to plan hospitals, to inform the public health officials, and to aid researchers.

The medical record technician works in the medical record department of a hospital, clinic, nursing home, school of veterinary medicine or other health facility and is responsible for many aspects of preparing, analyzing and preserving health information needed by the patients, by the hospital and by the public. The duties include reviewing medical records for completeness and accuracy and also translating diseases and operations into the proper coding symbols.

Other duties include filing medical records, preparing records for microfilming, typing reports of operations, X-rays and laboratory examinations, as well as histories, physical examinations and discharge summaries, compiling statistics of many kinds, assisting the medical staff by

preparing special studies and tabulating data from records for research. Supervising the day-to-day operation of a medical record department, taking records to court and maintaining the flow of health information are also parts of the total work picture.

Practice in the college medical record laboratory as well as in medical record departments of cooperating hospitals and other health care facilities, either within or outside the area, provides opportunities for additional educational experience which is the vital core of the program.

This curriculum is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association and by the American Medical Record Association. Students in this program are eligible to take the Medical Record Accreditation Examination following graduation and upon completion receive the title of Accredited Record Technician (ART). Salaries for 1984 graduates ranged from \$12,250 to \$10,088 with an average of \$11,305. Graduates can continue medical record education toward a baccalaureate degree at four-year colleges.

FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
BIO	131	Human Biology I.....	3	2	4
ENG	110	Written Expression I.....	3	0	3
MRT	101	Medical Record Science I.....	2	0	2
MRT	101L	Medical Record Science I Lab.....	0	2	1
MRT	105	Medical Terminology.....	2	0	2
SEC	101	A, B Typewriting (Each is a 5-week course).....	2	3	2
SOC		Social Science Elective.....	3	0	3
†HSV	101	Cardio-Pulmonary Resuscitation....	0	1	1/2
			15	8	17 1/2

† This course averages out to one laboratory hour per week over the entire semester, but it will probably be given in clusters of 3 hours each in the evening or of 7 1/2 hours each on Saturday to make a total of 15 hours.

Spring Semester

BIO	132	Human Biology II.....	3	2	4
MRT	107	Medical Transcription.....	0	4	2
MRT	110	Medical Record Science II.....	2	0	2
MRT	110L	Medical Record Science II Lab.....	0	4	2
MRT	115	Medical Terminology.....	2	0	2
SPK	102	Effective Speaking.....	3	0	3
SOC		Social Science Elective.....	3	0	3
			13	10	18

Summer Term

*MRT	144	Directed Practice....40 Hours per week for 4 weeks—4 Credits			
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SECOND YEAR Fall Semester

CST	110	Introduction to Data Processing....	3	0	3
BIO	140	Pathophysiology.....	3	0	3
MRT	202	Medical Record Science III.....	2	0	2
MRT	202L	Medical Record Science III Lab.....	0	2	1
MRT	208	Advanced Medical Transcription....	1	2	2
MRT	236	Quality Assurance.....	1	2	2
			10	6	13

Spring Semester

MRT	210	Medical Record Science IV.....	2	0	2
MRT	210L	Medical Record Science IV Lab.....	0	2	1
*MRT	245	Directed Practice.....	0	16	4
MRT	295	Medical Record Seminar.....	2	0	2
MRT	222	Medical Legal Aspects.....	3	0	3
MRT	216	Clinical Practicum.....	0	2	1
			7	20	13

*GRADUATION REQUIREMENT



Nursing students practicing the proper technique for handling infants, using a mannequin baby in the College's Nursing Laboratory.

NURSING

DEPARTMENT CHAIRPERSON, Janet H. Wright
901 Front Street
Telephone 771-5060

Broome Community College offers a two-year, college-based curriculum to prepare graduates for immediate entrance into the first level of registered nursing. Graduates of this curriculum are eligible to take the New York State licensing examination for registered nurses. They are qualified for immediate employment in bedside nursing care, or they may wish to continue their education for the baccalaureate and higher degrees in the nursing field. The 1984 graduates of this program averaged \$16,197 in their starting salaries, which ranged from \$21,840 to \$11,211.

The curriculum operates as a college program, with classes and

laboratories held on the campus. Clinical instruction is in the cooperating hospitals of the Triple Cities. The clinical experiences, which are an integral part of the Nursing curriculum, include caring for individuals in all age groups, as well as observation periods in community health and social agencies.

Enrollment in the Nursing curriculum requires that each student have a completed health form submitted to the Department Chairperson prior to the first clinical assignment.

Mature men and women are encouraged to enter this program along with recent high school graduates, whether they are married or single.

This program is accredited by the National League for Nursing.

FIRST YEAR Fall Semester

			Hours per Week		Credits
			Class	Lab	per Semester
*ADN	100	Meeting Basic Human Needs.....	5	6	7
BIO	131	Human Biology I.....	3	2	4
ENG	110	Written Expression I.....	3	0	3
PSY	110	General Psychology.....	3	0	3
†HSV	101	Cardio-Pulmonary Resuscitation....	0	1	1/2
			14	9	17 1/2

Spring Semester

*ADN	101	Nursing Care During the Life Cycle	5	6	7
ADN	298	Nursing Seminar III.....	1	0	0
BIO	132	Human Biology II.....	3	2	4
ENG	120	Written Expression II.....	3	0	3
SOC	110	Introduction to Sociology.....	3	0	3
			15	8	17

SECOND YEAR Fall Semester

*ADN	203	Immobility Concepts.....	3	4 1/2	4
*ADN	204	Regulatory Concepts.....	3	4 1/2	4
*ADN	205	Psychological Concepts I.....	1	3	2
ADN	296	Nursing Seminar I.....	0	2	1
ADN	298	Nursing Seminar III.....	1	0	0
BIO	150	Microbiology I.....	3	3	4
			3	0	3
			14	17	18

Spring Semester

*ADN	206	1, 1 and 0 Concepts.....	3	4 1/2	4
*ADN	207	Oxygenation Concepts.....	3	4 1/2	4
*ADN	208	Psychological Concepts II.....	1	3	2
ADN	297	Nursing Seminar II.....	0	2	1
			3	0	3
			10	14	14

* Clinical experiences for Nursing students may be scheduled during evening hours on their regular laboratory days. Multi-media laboratory hours are required for these courses.

NOTE—Each student enrolled in Nursing is expected to meet the Mathematics proficiency requirement.

DEPARTMENT CHAIRPERSON, Eugene V. Giovannini
Business Building, Room 108
Telephone 771-5137

ACADEMIC ADVISING, Evelyn Katusak
Business Building, Room 107
Telephone 771-5133

Broome Community College offers three options of study in Office Technologies — Executive Secretary, Office Services Assistant, and Word Processing. The department also offers a one-year certificate in General Office. Graduates of the options usually obtain immediate employment as stenographers, secretaries, office assistants, or word processors.

Executive Secretarial students study terminology in such fields as law, education, insurance, real estate, and investments as well as some technical terminology so that they can understand the specialized language used in the professions, government, and business firms as well as the specialized language used in engineering and such new fields as the emerging automated office.

Office Services Assistant students study a variety of courses including accounting, typewriting and office management. The graduates of the Office Services Assistant option, with its emphasis on machine transcription and text editing concepts and equipment, should find employment in word processing centers and other areas of office service work.

Word Processing option students concentrate their study in such areas as word processing concepts, text editing functions and applications, data processing, data entry, and the administration of automated offices. These graduates are prepared to handle the basic operations and administrative duties of the integrated automated office.

The faculty of this department places the responsibility of class attendance upon the student, who should attend classes regularly and on time. If an employee does not show up for work, he/she can expect to be terminated. A student who does not attend classes can expect to fail.

Faculty will inform students of the College's and department's attendance and academic dismissal policies. It is the student's responsibility to understand these policies. Whenever a faculty member feels that a student has been absent or tardy to the extent that it may be detrimental to the student's academic standing, the faculty member will inform the department chairperson, who in turn will meet with the student concerned for appropriate action.

Non-traditional students and part-time students should meet with the academic advisement coordinator in Room 103 of the Business Building (phone 771-5174) for academic advisement prior to registering for classes. These students must refer to course descriptions to be certain they meet prerequisite requirements prior to registering for courses. If a student fails SEC 101A Typewriting or SEC 109 Basic Transcription twice, he/she will be dismissed from the program. If the student fails SEC 110 Shorthand twice, he/she will be dismissed from the Executive Secretarial option. The student will be given an opportunity to choose another option.

			FIRST YEAR		Credits	
			Fall Semester		per Semester	
			Class	Lab	Hours per Week	
BUS	112	Quantitative Business Methods.....	2	0	2	2
CST	110	Introduction to Data Processing.....	3	0	3	3
ENG	110	Written Expression I.....	3	0	3	3
†SEC	101	A, B, C, Typewriting (Each is a 5-week course)				
		or.....	2	3	3	3
†SEC	102	A, B, C, Typewriting (Each is a 5 week course)				
SEC	109	Basic Transcription.....	3	0	3	3
SEC	110	Shorthand.....	2	3	3	3
*SEC	130	Freshman Orientation.....	*	0	1½	½
			*15½		6	17½

† Student's typewriting background will determine placement.

*SEC 130 Freshman Orientation meets every other week for one hour.

			Spring Semester			
ENG	120	Written Expression II.....	3	0	3	3
SEC	102	A, B, C, Typewriting..... (Each is a 5-week course)	2	3	3	3
SEC	111	Shorthand & Transcription.....	2	3	3	3
SEC	151	Business Communications.....	3	0	3	3
		Lab Science Elective.....	2-3	2-0	3	3
			12-13	6-8	15	

			SECOND YEAR			
			Fall Semester			
BUS	100	Accounting I.....	4	0	4	4
#SEC	237	Text Editing I.....	1	4	1	1
#SEC	238	Text Editing II.....	(1)	(4)	1	1
#SEC	235	Machine Transcription Module.....	(1)	(4)	1	1
SEC	230	Advanced Shorthand.....	2	3	3	3
ECO	110	Introduction to Micro-Economics or.....	3	0	3	3
ECO	111	Introduction to Macro-Economics Mathematics or Science Elective....	2-3	0-2	3	3
#SEC	243	Records Management.....	3	0	1	1
			15-16	7-9	17	

Each course is a 5-week module.

			Spring Semester			
SEC	211	Advanced Typewriting.....	2	2	3	3
SEC	242	Office Procedures.....	3	0	3	3
BUS	118	Business Law.....	3	0	3	3
SEC	260	Model Office or.....	0	4	2	2
SEC	270	Internship Social Science Elective.....	3	0	3	3
		Liberal Arts Elective.....	3	0	3	3
			14	6	17	

OFFICE SERVICES ASSISTANT

FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
BUS	112	Quantitative Business Methods.....	2	0	2
BUS	118	Business Law.....	3	0	3
CST	110	Introduction to Data Processing.....	3	0	3
†SEC	101	A, B, C, Typewriting (Each is a 5-week course)			
		or.....	2	3	3
†SEC	102	A, B, C, Typewriting (Each is a 5-week course)			
SEC	109	Basic Transcription.....	3	0	3
SEC	130	Freshman Orientation.....	*	0	½
ENG	110	Written Expression I.....	3	0	3
			*16½	3	17½

† Students typing background will determine placement.
*SEC 130 Freshman Orientation meets every other week for one hour.

Spring Semester

SEC	102	A, B, C Typewriting.....	2	3	1
		(Each is a 5-week course)			
SEC	151	Business Communications.....	3	0	3
ENG	120	Written Expression II.....	3	0	3
		Lab Science Elective.....	2-3	0-2	3
		Liberal Arts Elective.....	3	0	3
			13-14	3-5	15-16

SECOND YEAR Fall Semester

BUS	100	Accounting I.....	4	0	4
#SEC	237	Text Editing I.....	1	4	1
#SEC	238	Text Editing II.....	(1)	(4)	1
#SEC	243	Records Management.....	3	0	1
SEC	211	Advanced Typing.....	2	2	3
SEC	236	Machine Transcription.....	2	2	3
ECO	110	Introduction to Micro-Economics.....	3	0	3
			15	8	16

Spring Semester

BUS	101	Accounting II.....	4	0	4
SEC	242	Office Procedures.....	3	0	3
SEC	260	Model Office or.....	0	4	2
SEC	270	Internship.....			
ECO	111	Introduction to Macro-Economics... Math or Science Elective.....	3 2-3	0 0-2	3 3
			12-13	4-6	15

Each course is a 5-week module.

WORD PROCESSING

FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
BUS	112	Quantitative Business Methods.....	2	0	2
CST	110	Introduction to Data Processing.....	3	0	3
ENG	110	Written Expression I.....	3	0	3
†SEC	101	A, B, C Typewriting (Each is a 5-week course)			
		or.....	2	3	3
†SEC	102	A, B, C Typewriting (Each is a 5-week course)			
SEC	109	Basic Transcription.....	3	0	3
*SEC	130	Freshman Orientation.....	*	0	½
		Lab Sciences Elective.....	2-3	2-3	3-4
			*15½-16½	5-6	17½-18½

† Student's typewriting background will determine placement.
*SEC 130 Freshman Orientation meets every other week for one hour.

Spring Semester

ENG	120	Written Expression II.....	3	0	3
MAT	117, 121 or 124.....		3-4	0	3-4
SEC	102	A, B, C Typewriting (Each is a 5-week course).....	2	3	3
		or Business Elective			
SEC	151	Business Communications.....	3	0	3
		Social Science Elective.....	3	0	3
			14-15	3	15-16

SECOND YEAR Fall Semester

BUS	100	Accounting I.....	4	0	4
CST		Computer Language Elective or Business Elective.....	2-4	0-2	3-4
SEC	236	Machine Transcription.....	2	2	3
#SEC	237	Text Editing I.....	1	4	1
#SEC	238	Text Editing II.....	(1)	(4)	1
#SEC	239	Text Editing III.....	(1)	(4)	1
SEC	241	Word Processing Concepts.....	3	0	3
			12-14	6-8	16-17

Spring Semester

BUS	101	Accounting II or BUS Elective.....	3-4	0	3-4
SEC	250	Office Administration.....	3	0	3
SEC	260	Model Office or.....	0	4	2
SEC	270	Internship.....			
#SEC	243	Records Management.....	3	0	1
		Liberal Arts Elective.....	3	0	3
		Social Science Elective.....	3	0	3
			15-16	4	15-16

Each course is a 5-week module.

TOOL AND DIE MAKING

(NOT ADMITTING NEW STUDENTS IN DAY PROGRAM FOR 1985-86)

This day program will not accept new students for the 1985-86 academic year. The College will continue to operate a program in the evening in Tool and Die Making, and students interested in enrolling should contact the coordinator of the curriculum, who is listed above.

Students may take some courses during the day and their technical courses in the evening, if that is convenient for them.

Satisfactory completion of the entire curriculum qualifies an individual for the Associate in Occupational

Studies (AOS) Degree. Credits earned toward this degree are generally not considered for transfer.
Job opportunities exist both locally

and nationally, and starting salaries for 1984 graduates ranged between \$19,156 and \$10,000 with an average of \$14,182.

PROGRAM COORDINATOR, Billie M. Vest
Mechanical Building, Room 117
Telephone 771-5010

GENERAL OFFICE CERTIFICATE PROGRAM

Fall Semester

		Hours per Week		Credits
		Class	Lab	per Semester
†SEC 101	A, B, C Typewriting (Each is a 5-week course)	2	3	3
†SEC 102	A, B, C Typewriting (Each is a 5-week course)	2	3	3
BUS 110	Introduction to Business	3	0	3
ENG 100	Basic Language Skills	3	0	3
ENG 110	Written Expression I	3	0	3
PSY 100	Psychology of Personal Adjustment	3	0	3
PSY 110	General Psychology	3	0	3
SAC 101	The Individual in a Changing Environment	3	0	3
SAC 295	Seminar in Human Potential	3	0	3
SEC 109	Basic Transcription	*	0	1/2
*SEC 130	Freshman Orientation	*14 1/2	3	15 1/2

† SEC 101 and SEC 102 are modular courses, with each module 5 weeks long. Students will take the appropriate course based on their records. Please refer to course descriptions.

*SEC 130 Freshman Orientation meets every other week for one hour.

Spring Semester

SEC 120	A, B, C Typewriting (Each is a 5-week course)	2	3	3
	or			
	Business Elective	(3)	(0)	(3)
SEC 151	Business Communications	3	0	3
SEC 246	Office Machines	2	3	3
SEC 248	Office Procedures	3	0	3
	Business Elective	3-4	0	3-4
		13-15	3-6	15-16

FIRST YEAR Fall Semester

			Hours per Week		Credits
			Class	Lab	per Semester
TDA 111	Blueprint Reading		3	0	3
TDA 113	Survey of Industrial Safety & First Aid		2	0	2
MAT 139	Algebra		4	0	4
TDA 114	Benchwork		2	0	2
MET 121	Manufacturing Processes I		2	2	3
MET 113	Engineering Drawing I		1	2	2
			14	4	16

Spring Semester

ENG 150	Technical Writing		3	0	3
ENG 110	Written Expression I		4	0	4
MAT 140	Trigonometry		1	2	2
MET 114	Engineering Drawing II		1	3	2
MET 122	Manufacturing Processes II		3	0	3
TDA 120	Precision Measurement & Inspection		1	2	2
TDA 200	Metallurgy		3	0	3
ECO 104	Labor Economics & American Industry		3	0	3
			16	7	19

SECOND YEAR Fall Semester

TDA 130	Tool Grinding		1	2	2
TDA 140	Production Processes		3	0	3
BUS 255	Industrial & Labor Relations		2	0	2
TDA 132	Statics		2	0	2
TDA 261	Introduction to Quality Control and Inspection		3	0	3
MET 223	Manufacturing Processes III		1	2	2
BUS 252	Supervision of Personnel		2	0	2
			14	4	16

Spring Semester

TDA 248	Hydraulics & Pneumatics		2	2	3
EET 181	Installation and Maintenance of Electric Motors		1	2	2
TDA 250	Control Systems		3	0	3
TDA 230	Tool Design		4	0	4
TDA 235	Strength of Materials		3	0	3
			13	4	15

RADIOLOGIC TECHNOLOGY

DEPARTMENT CHAIRPERSON, Nancy Button
Business Building, Room 023
Telephone 771-5070

Because 2200 hours of clinical practice are required in this curriculum, freshman courses identified with the RAD designator will begin the week of registration, which is one week before the start of regular classes.

Radiologic Technology is a diverse profession. The radiographer must draw from the fields of communication, psychology, photography and the physical and biological sciences, while utilizing an investigative approach to perform the daily tasks.

The typical role of the radiographer consists of producing radiographs used in the diagnosis of disease and injury. The radiographer finds employment in hospitals, with doctors who maintain private practices, with government agencies, both civil and military, and in industry.

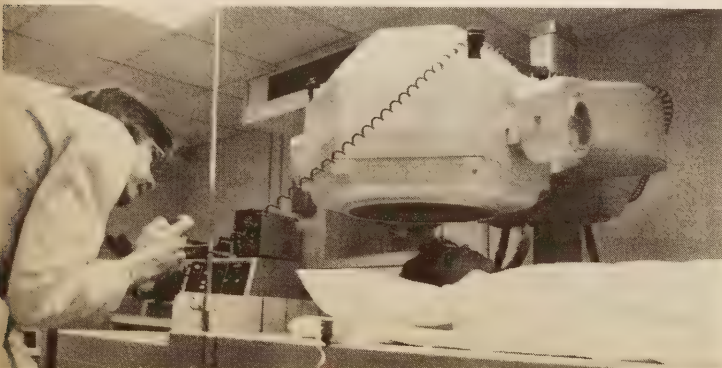
A radiographer may continue education in areas such as ultrasound, nuclear medicine, special radiographic procedures, departmental administration, research, education and radiation therapy.

The Radiologic Technology program at Broome Community College consists of two academic

years on campus and two summers in cooperating hospitals, the equivalent of 24 calendar months. The curriculum is an extremely active one, in which the student is responsible for maintaining academic requirements on campus as well as fulfilling the practical application of this theory at the cooperating hospitals.

The clinical experience is a viable part of the educational process. Upon completion of 2200 hours of clinical practice as well as the academic requirements of the program, the graduate is eligible to sit for the examination of the American Registry of Radiologic Technologists for certification and New York State licensure.

This curriculum is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association.



A Radiologic Technology student positioning a patient for an X-ray in a local hospital.

FIRST YEAR Fall Semester

			Hours per Week		Credits per Semester
			Class	Lab	
BIO	131	Human Biology I.....	3	2	4
ENG	110	Written Expression I.....	3	0	3
RAD	100	Introduction to Radiologic Technology.....			2
		First half-semester.....	2	0	
		Second half-semester.....	0	16	
RAD	101	Radiologic Technology I.....	3	1	3
RAD	103	Positioning I.....	0	3	1
RAD	110	Methods of Patient Care.....	2	1	2
RAD	115	Radiation Protection.....	1	0	1
†HSV	101	Cardio-Pulmonary Resuscitation....	0	1	½
			12-14	8-24	16½

† This course will average out to one hour per week over the semester, but it will probably be given in clusters of 3 hours each in the evening or of 7½ hours each on Saturday to make a total of 15 hours.

WINTER TERM I

*RAD 131 Clinical Education I.....(40 hours per week)

Spring Semester

BIO	132	Human Biology II.....	3	2	4
ENG	120	Written Expression II.....	3	0	3
PHY	117	Physics.....	2	2	3
RAD	102	Radiologic Technology II.....	3	0	3
RAD	104	Positioning II.....	0	3	1
RAD	132	Clinical Education II.....	0	16	2
			11	23	16

SUMMER TERM I

*RAD 133 Clinical Education III..... 0 40 3

SECOND YEAR Fall Semester

PSY	110	General Psychology.....	3	0	3
RAD	203	Positioning III.....	0	3	1
RAD	210	Radiologic Physics.....	4	0	4
RAD	220	Radiologic Pathology.....	2	0	2
RAD	230	Clinical Education IV.....	0	16	2
		Social Science Elective.....	3	0	3
CST	105	Understanding Computers.....	2	2	3
			14	21	18

WINTER TERM II

*RAD 231 Clinical Education V.....(40 hours per week)

Spring Semester

RAD	216	Imaging Modalities.....	1	0	1
RAD	225	Special Radiographic Procedures...	3	2	4
RAD	232	Clinical Education VI.....	0	16	2
RAD	245	Radiobiology.....	2	0	2
RAD	250	Image Assessment.....	2	1	2
RAD	295	Seminar in Radiography.....	2	0	2
			10	19	13

SUMMER TERM II

*RAD 233 Clinical Education VII..... 0 40 3

*Successful achievement is a GRADUATION REQUIREMENT

Part-Time Students

MEETING MANY NEEDS

People often think that higher education is available only for recent high school graduates. Broome Community College tries to reach out and meet the educational needs of ALL the people in Broome County. "Community" is part of the College's name and a large portion of its mission. BCC is concerned about meeting the needs of the part-time student, as well as those enrolled full time.

Anyone in the community may enroll as a part-time student, and BCC attracts a large number each year. The fall 1984 part-time enrollment, for example, was over 3,000 men and women, most of them for evening classes as they are largely adults who work during the day. In recent years the College has also increased its enrollment of part-time day students, and the total was about 500 last fall.

PART-TIME STUDENTS

...are those who take fewer than 12 credits per semester, usually one or two courses. At BCC, part-time students can:

- Enroll in credit or non-credit mini courses.
- Take day or evening courses or both.
- Attend classes in the fall, spring or summer semester.
- Earn a degree or not, as they see fit. Certificate programs are also available.
- Apply for financial aid—if carrying 6 or more credits.
- Receive academic advice and personal counseling.
- Find other students over 21.
- Borrow books from the College Library.
- Carry one, two or three courses.
- Receive Veterans' benefits.
- Transfer credits to BCC earned at another college.

CREDIT/DEGREE PROGRAMS FOR EVENING PART-TIME STUDENTS

Broome Community College offers 18 degree programs which can be completed through part-time study. Most of the courses in these programs can be completed in evening or weekend study. On the following pages are displays for the following degree programs.

Associate in Applied Science

1. Business (Accounting Emphasis) . . . Page 64
2. Business (General Emphasis in Management and Marketing) . . . Page 64
3. Child Care . . . Page 65
4. Criminal Justice . . . Page 65
5. Data Processing . . . Page 43
6. Computer Technology . . . Page 43
7. Fire Protection Technology . . . Page 68
8. Individual Studies . . . Page 47

Industrial Technology

9. Chemical Emphasis . . . Page 66
10. Electrical Emphasis . . . Page 66
11. Mechanical Emphasis . . . Page 67
12. Production Management . . . Page 67
13. Paralegal Assistant . . . Page 68

Associate in Arts

14. Liberal Arts and Sciences . . . Page 69

Associate in Science

15. Liberal Arts—Science Option . . . Page 69
16. Liberal Arts—Mental Health and Retardation . . . Page 69
17. Individual Studies . . . Page 47

Associate in Occupational Studies

18. Tool and Die Making . . . Page 70

Additionally, the College sponsors several certificate programs. These are detailed on page 70.

NOTE — Many firms have a tuition-reimbursement plan that pays all or part of an employee's tuition and costs if his/her courses are job-related.

The College conducts a special Information Session for new part-time students at the beginning of the fall and spring semesters to inform prospective students what programs are available, how to register, how to get started at BCC, and to answer their many questions.

ENROLLMENT

First-Time Enrollment

Those enrolling as part-time students for the first time at Broome Community College should be aware of the following services available to them:

- Information Sessions
- Registration and Advisement
- Financial Aid
- Veterans Benefits

THE INFORMATION SESSIONS are conducted prior to each term. At this time, one can learn about the College and its programs, how to register, how to schedule courses, and how to get answers to questions.

REGISTRATION IS REQUIRED. First-time students must register, in person or by mail. They must pay their tuition at the time they register in person, or when billed if registering by mail.

RESIDENCY REQUIREMENTS. See page 12.

Continued Enrollment

Those who are continuing their studies at the College as part-time students should always keep in close touch with their academic advisors and follow the procedure shown on pages 62 to 70 for their program of study, so that they do not overlook any courses they should take.

They also are eligible for the financial aid and veterans benefits of first-time, part-time students, and they have to comply with the same residency requirements. They must also register, either by mail or in person. Tuition must be paid at the time of registration, if in person, or when billed if registering by mail.

MATRICULATION

Part-time Day and Evening Students

The *All-Purpose Reminder Form* is used by the College for several procedures, one of which is matriculation into academic programs.

Students wishing to be admitted to part-time day or evening degree programs (with the exception of the Health Sciences) should fill out an *All-Purpose Reminder Form*. This form may be obtained in the Wales Building Room 111. Upon acceptance, the student will receive a formal letter of admission.

ADVISEMENT

Academic advisors are available in the Student Academic Advisement Center (Room 111, Wales Building) to accommodate the evening student population at Broome Community College.

Evening Part-time Students who are nearing the completion of their certificate or degree requirements or those who need to know the requirements for any degree program offered in the evening, should consult one of the academic advisors. Each advisor is prepared to handle questions concerning any degree program. There will be advisors available from Monday through Thursday evening in Room 111 of the Wales Building (no appointment necessary).

Day part-time Students seeking advisement should contact the chairpersons of their academic departments. They should also apply to their chairpersons when they are ready to receive their associate degrees.

All part-time students, with the exception of those in the Health Science areas, are matriculated through the Academic Advisement Office in Room 111 of the Wales Building. Health Science students are accepted through the Admissions Office.

TUITION

Part-time students are those who carry fewer than 12 credit hours. Tuition and fees are listed on pages 12 and 13.

FINANCIAL AID is available to part-time students who take 6 or more credits. Many companies have tuition reimbursement plans, and employees should familiarize themselves with their companies' policy. The College has a Financial Aid office in the Wales Building, Room 101 to answer questions about this. If one's company is paying, a letter to that effect should be brought to registration.

GRADUATION

Evening Students Only

All awards for Degrees, and Certificates for part-time students at Broome Community College are conferred in May. Evening students who expect to complete course requirements by May must declare their candidacy by filing an *All-Purpose Reminder Form* in Wales 111 prior to February 1 of that year. This will initiate an official review of the records and a formal letter of candidacy. The Registrar's Office will also be notified, and it will send out information in April pertaining to the awards ceremonies.

PART-TIME STUDENTS

CREDIT FOR PRIOR LEARNING

Transfer Credits

• Courses completed at another college prior to enrolling at Broome Community College will be considered for transfer credits. The student, however, must initiate the request for this consideration.

• An official transcript must be on file for all students—part-time or full—prior to transcript review for transfer purposes.

Credit for Non-Academic Experience

Credit may be given for life experiences or previous employment accomplishments. A number of methods exist for receiving this credit, and details are available from the dean of the division in which one is pursuing a degree. (See page 15)

Students may also find it advantageous to request credit by examination for a course in whose field they have previous experience. They can do this by taking a special examination. If they pass this test, they can receive "Credit by Examination" for the course and will not have to take it, thus saving the cost of tuition and the semester(s) involved. Taking this examination for credit requires payment of a fee for a non-laboratory course. If the course has a laboratory, an additional fee will be charged for the laboratory portion of the exam.

Summer Session

Each summer Broome Community College offers several terms of summer sessions from 6 to 8 weeks long, in day and evening sections. An announcement of the Summer schedule and policies is available in April of each year.

Weekend Courses

In addition to a daily class schedule, the College also sponsors courses on Fridays and Saturdays. Schedules are printed each semester.

DISPLAY OF CREDIT PROGRAMS

Following are displays of courses for the programs that the College offers to part-time students. Most of these are given in the evening, although some are day offerings. Students who pursue these programs should meet with their academic advisors or program coordinators to determine the best approach to meeting their individual needs.

The displays of courses in each curriculum are divided into three categories to assist the student in determining which courses to take and in what order.

Category 1 - "Introductory Courses" are entry-level courses in each program. They are frequently prerequisites for courses that must be taken later.

Category 2 - "Additional courses for Certificate" are those which together with the introductory courses will satisfy the requirements for the curriculum certificate. The certificate is about the mid-point for the attainment of an associate degree.

Category 3 - "Remaining Courses for Degree" lists the additional courses required for the completion of the associate degree.

Students should always consult with their advisors, as sometimes special course consideration is possible.

ASSOCIATE IN APPLIED SCIENCE—BUSINESS ACCOUNTING EMPHASIS

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
BUS 100 Accounting I	4
BUS 112 Quan. Business Methods	2
BUS 118 Business Law I	3
BUS 141 Marketing	3
ENG 110 Written Expression I	3
Additional Courses for Certificate	
BUS 101 Accounting II	4
BUS 200 Intermediate Accounting I	4
BUS Elective	3
CST 110 Introduction to Data Processing	3
Social Science Elective	3
	<hr/> 32

Remaining Courses for Degree	
BUS 201 Intermediate Accounting II	4
BUS 205 Cost Accounting I	4
BUS 210 Managerial Accounting	}
or	
BUS 206 Cost Accounting II	4
ENG 120 Written Expression II	}
or	
ENG 150 Technical Report Writing	3
*2 Mathematics Courses	}
or	
2 Science Electives	6-8
Social Science Elective	3
SPK 102 Effective Speaking	3
†Business Related Electives	6-8
(Select 2)	
AAS Business (Accounting Emphasis)	
Minimum Semester Credits	<hr/> 65-69

* Students who have passed Sequential Math III in high school will take MAT 121 Finite Mathematics. Those who have not passed it will take MAT 117 Elementary Finite Mathematics.

† Business related courses from BUS, CST, MAT, MET or SEC course numbers as approved by the Academic Advisor for Business.

GENERAL EMPHASIS (Management and Marketing)

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
BUS 100 Accounting I	4
BUS 101 Accounting II	4
BUS 112 Quan. Business Methods	2
BUS 118 Business Law I	3
ENG 110 Written Expression I	3
BUS 141 Marketing	3

Additional Courses for Certificate

BUS 259 Report Writing	3
Liberal Arts Elective	3
Business Courses (see below)	7
	<hr/> 32

Remaining Courses for Degree

Business Courses (see below)	8
Business Related Courses (see below)	8
Social Sciences	6
English Elective	3
BUS 115 Business Statistics	3
PHS 111 Physical Science for Today	3
Math or Science Elective	3-4
AAS in Marketing or Management	
Minimum Semester Credits	<hr/> 66-67

Suggested Management Electives: BUS 224, BUS 243, BUS 246, BUS 252, BUS 255, BUS 256, BUS 257, BUS 258, BUS 261, BUS 262, BUS 270.

Suggested Marketing Electives: BUS 120, BUS 129, BUS 131, BUS 152, BUS 154, BUS 238, BUS 247.

NOTE: A number of choices exist in The Business—General Emphasis Certificate Program. By carefully selecting the proper Business courses, students can generate a concentration in a particular area, such as Sales, Retailing or Management. To identify these courses, students should discuss their interests with their academic advisor.

The courses completed to earn the certificate are acceptable as credits toward an Associate in Applied Science degree in Marketing or Management.

Business students who have taken courses through AIB, LOMA, or other recognized national programs of study and examination should apply to the Academic Advisor for consideration of credit.

A.A.S.—CHILD CARE

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
PSY 110 General Psychology	3
PSY 211 Child Development	3
CDC 100 Introduction to the Education of Young Children	3
ENG 110 Written Expression I	3
CDC 120 Curriculum Development	3

Additional Courses for Certificate

SOC 110 Introduction to Sociology	3
CDC 200 Social Psychology of Education	3
Child Care Electives (see list below)	9
	30

Remaining Courses for Degree

English/Literature	3
Humanities Elective (see list below)	3
Math or Science Elective (see list below)	6-8
Child Care Electives (see list below)	3
CDC 170 Practicum I	3
CDC 290 Practicum II	6
Related Approved Electives (see list below)	6
AAS Child Care Minimum Semester Credits	60-62

More Information:

Marilyn Schafer, Program Coordinator, Francis J. Short, Chairman. (Phone 771-5029).

CDC Electives
Students may select 12 hours of courses designated for Child Care, such as CDC 115, CDC 140, CDC 150, CDC 160, CDC 210, CDC 220, CDC 230, CDC 250, LIT 263

Related Electives:
Students may elect 6 hours from the Related Approved Electives from the following: PSY 103, PSY 212, PSY 214, PSY 217, PSY 220, PSY 227, SOC 230, SOC 210, SOC 234, or from other disciplines with permission.

Elective Areas:
Suggested Humanities—select from English, Languages, Fine Arts, Philosophy, Speech (SPK 102 recommended)

Math or Science—select from Math, Biology, Chemistry, Physics, Physical Science (MAT 113, BIO 131, CHM 120 recommended)

COMPUTER OFFERINGS

COMPUTER SCIENCE (Associate in Science Degree)

COMPUTER TECHNOLOGY (Associate in Applied Science Degree)

DATA PROCESSING (Associate in Applied Science Degree)

These degrees are discussed in detail on pages 40 to 43. Courses will be offered in both the daytime and evening. Part-time students are encouraged to enroll. The entrance requirements for each program are listed in the table on page 7. Information on matriculation, registration and advisement is available from the Student Academic Advisement Center in Room 111 of the Wales Administration Building. Call 771-5150.

Part-time student adviser & coordinator — Paulette Gannett. Phone 771-5113.

Department Chairperson — Mary Diegert. Phone 771-5022.

A.A.S.—CRIMINAL JUSTICE

This program is designed for individuals considering employment upon graduation or for those already employed in the Criminal Justice field. Students intending to transfer for advanced degrees are advised to pursue the Criminal Justice option in Liberal Arts (see page 51).

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
ENG 110 Written Expression I or ENG 100 Basic Language Skills	3
SOC 110 Introduction to Sociology	3
Criminal Justice Elective	3
CRJ 101 Intro. to Criminal Justice	3

Additional Courses for Certificate

PSY 110 General Psychology	3
SPK 102 Effective Speaking	3
POS 201 The American Political System or POS 204 American State & Local Government	3
Sociology Elective	3
Psychology Elective	3
Criminal Justice Courses	6
	33

Remaining Courses for Degree

Lab Science or Math or Combination	6
Philosophy Elective	3
Free Electives (any field: Social Science recommended)	6
Criminal Justice Courses	12
AAS Criminal Justice Minimum Semester Credits	60

Credit for academy training will be considered after admission to candidacy on the basis of about one credit per 40 or one credit per 50 contact hours, with option to receive transfer credit for other Criminal Justice related programs up to 12 credits total. The requirement will be that the individual must provide documentation of attendance and relevancy of work.

More Information:

Francis J. Short, Chairman, Phone 771-5087
William F. Michalek, Coordinator

PART-TIME STUDENTS

ASSOCIATE IN APPLIED SCIENCE INDUSTRIAL TECHNOLOGY

CHEMICAL EMPHASIS

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
MAT 139 Algebra	4
CHM 145 Chemistry	4
English Electives (see list below)	3

Additional Courses for Certificate

CHM 146 Chemistry	4
CHM 291 Organic Chemistry I	3
CHM 292 Organic Chemistry II	3
PHY 141 Physics	4
MAT 140 Trigonometry	4
CST 122 Computer Programming— FORTRAN (Technical)	3
	<hr/> 32

Remaining Courses for Degree

PHY 142 Physics	4
CHM 293 Analytical—Instrumental Chemistry I	3
CHM 294 Analytical—Instrumental Chemistry II	3
English Electives (see list below)	3
Social Science Electives (see list below)	6
Approved Technical Science Electives (see list below)	13
AAS Industrial Technology (Chemical Emphasis)	
Minimum Semester Credits	64

The following may be taken as approved technical/science courses to meet degree requirements: MAT 142, MAT 181, MAT 182, MAT 264, EET 111, EET 112, EET 125, EET 126, MET 261, CST 113, CST 126, CST 140, CST 150, CST 170, CST 202, CST 205, CST 211, CST 220, CST 222, CST 225, BIO 111, BIO 112.

Suggested English Courses:
ENG 110, ENG 120, ENG 150, SPK 102

Suggested Social Science Courses:
ECO 104, ECO 110, ECO 111, PSY 100, PSY 110, SOC 110, SOS 120, SOS 130

ELECTRICAL EMPHASIS

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
MAT 139 Algebra	4
MAT 140 Trigonometry	4
EET 125 Circuits	3
ENG 110 Written Expression I	3

Additional Courses for Certificate

EET 126 Circuits II	3
EET 255 Electronics I	4
MET 113 Engineering Drawing	2
CST 122 Computer Programming— FORTRAN (Technical)	3
Social Science Elective (see list at right)	3
Approved Technical Electives (see list at right)	3
	<hr/> 32

Remaining Courses for Degree

EET 235 Electrical and Electronics Drawing	2
EET 245 Energy Conversions and Control Systems	4
EET 256 Electronics II	4
EET 257 Electronics III	4
EET 267 Digital Electronics & Microprocessors I	4
PHY 141 & PHY 142 Physics	8
ENG 150 Technical Writing	3
Social Science Elective (see list below)	3
AAS Industrial Technology (Electrical Emphasis) Minimum Semester Credits	64

Approved Technical Electives:

EET 111, EET 112, EET 268, MAT 124, MAT 181, MAT 182, MAT 264, MAT 245, MET 132, MET 247, MET 249, MET 253, MET 255, MET 261, MET 280, MET 285, MET 286, MET 287, CIV 228, CIV 268, CIV 155, CHM 145, CHM 146, CST 115, CST 126, CST 130, CST 150, CST 200, CST 202, CST 205, CST 222, CAD 200, CAD 201, CAD 220

Suggested Social Science Courses:

ECO 104, ECO 110, ECO 111, PSY 100, PSY 110, SOC 110, SOS 120, SOS 130

Courses in the fast changing engineering technologies such as Electronics, Computers, Energy Conversions and Control Systems and Machine & Controls, can not be used for degree requirements if they were taken more than 5 years prior to graduation date. One exception to this rule would be the student who has been in the degree program for a number of years and has taken at least one required course every fall and spring semester.

PART-TIME STUDENTS

ASSOCIATE IN APPLIED SCIENCE—INDUSTRIAL TECHNOLOGY

MECHANICAL EMPHASIS

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
MAT 139 Algebra	4
MAT 140 Trigonometry	4
MET 113 Engineering Drawing I	2
English Elective (see list below)	3

Additional Courses for Certificate

MET 121 Manufacturing Processes I	3
MET 122 Manufacturing Processes II	2
PHY 141 Physics	4
CST 122 Computer Programming— FORTRAN (Technical)	3
MET 132 Applied Mechanics	4
Approved Technical Electives (see list below)	3
	32

Remaining Courses for Degree

MET 235 Strength of Materials	3
MET 253 Engineering Materials & Industrial Processes	3
MET 261 Engineering Statistics & Quality Control	3
PHY 142 Physics	4
English Elective (see list below)	3
Social Science Electives (see list below)	6
Approved Technical Electives (see list below)	10
AAS Industrial Technology (Mechanical Emphasis)	
Minimum Semester Credits	64

The following may be taken as approved technical elective courses to meet degree requirements:
CAD 200, CAD 201, CAM 210, CAD 220, CAD 230, MET 114, MET 223, MET 245, MET 280, MET 285, MET 286, MET 287, EET 111, EET 112, EET 125, EET 126, EET 255, EET 256, EET 257, CIV 159, CIV 160, CHM 145, CHM 146, MAT 181, MAT 182

Suggested English Courses:

ENG 110, ENG 120, ENG 150, SPK 102

Suggested Social Science Courses:

ECO 104, ECO 110, ECO 111, PSY 100, PSY 110, SOC 110, SOS 130

PRODUCTION MANAGEMENT EMPHASIS

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
*MAT 139 Algebra	4
*MAT 140 Trigonometry	4
MET 113 Engineering Drawing I	2
English Elective (see list at right)	3

Additional Courses for Certificate

MET 121 Manufacturing Processes I	3
MET 122 Manufacturing Processes II	2
PHY 141 Physics	4
BUS 149 Management & Organization I	2
MET 280 Management Decisions	2
MET 285 Time, Motion & Wage Study	2
Approved Electives (see list at right)	4
	32

*Must have a minimum of 4 hours of Mathematics as a requirement for the degree if background makes it unnecessary to take MAT 139 Algebra and MAT 140 Trigonometry.

Remaining Courses for Degree

	Credits
CST 122 Computer Programming— FORTRAN (Technical)	3
BUS 252 Supervision of Personnel	2
MET 261 Engineering Statistics & Quality Control	3
MET 286 Production Control	2
MET 287 Plant Layout & Materials Handling	2
PHY 142 Physics	4
English Elective (see list below)	3
Social Science Electives (see list below)	6
Approved Electives (see list below)	7
AAS Industrial Technology (Production Management Emphasis) Minimum Semester Credits	64

The following may be taken as approved elective courses to meet degree requirements:

CST 110, MET 114, MET 125, MET 132, MET 235, MET 253, EET 111, EET 112, EET 125, EET 126, CIV 159, CIV 160, BUS 118, BUS 154, BUS 243, BUS 255, MAT 181, MAT 182, CAD 200, CAD 201, CAD 220

Suggested English Courses:

ENG 110, ENG 120, ENG 150, SPK 102

Suggested Social Science Courses:

ECO 104, ECO 110, ECO 111, ECO 120, PSY 100, PSY 110, SOC 110, SOS 130

ASSOCIATE IN APPLIED SCIENCE

FIRE PROTECTION TECHNOLOGY

The Fire Protection Technology Program is designed to provide fire fighters and related fire service personnel with specialized training. The curriculum has been developed by a local advisory committee to meet the needs of the area, and specialized courses as well as general education courses constitute the degree program. Specialized courses include Fire Fighter Tactics and Strategy, Arson Investigation, Hydraulics, Hazardous Materials, Fire Prevention, and Building Construction.

This program is open to both paid and volunteer fire fighters of the community, as well as those persons in related firematic areas.

More Information:

Francis J. Short, Chairman (Phone 771-5087)
Anthony Winkler, Program Coordinator

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses

ENG 110 Written Expression I
Fire Protection Courses

Credits

3
9

Additional Courses for Certificate

SPK 102 Effective Speaking
Mathematics or Science Elective
(see list at right)
Chemistry (see list at right)
Social Sciences (see list at right)
Fire Protection Courses

3

3-4

3

3

6

30-31

INDIVIDUAL STUDIES
(Associate in Applied Science
or Associate in Science Degrees)
See page 47

Remaining Courses for Degree

Fire Protection Courses
Social Sciences (see list below)
Health (see list below)
Management (see list below)
Electives (see list below)

6
3
3
6
12

AAS Fire Protection Technology
Minimum Semester Credits

60-61

Recommended Electives

Chemistry: Suggest CHM 120

Mathematics: Suggest MAT 139 (4 Credits)

Social Sciences: Choose from History, Anthropology,
Sociology, Psychology, Political Science, Economics.

Health: Advanced First Aid Emergency Medical Techni-
cian Programs or equivalent may be submitted for
approval.

Fire Protection Courses: Select from FRS 101, FRS 103,
FRS 105, FRS 107, FRS 108, FRS 200, FRS 201, FRS 205,
FRS 210, FRS 250, FRS 299.

Management: Suggest BUS 245, BUS 246, BUS 258, BUS
262, BUS 150.

Electives: Courses with FRS, SAF, MAT designators,
CHM 121, CHM 290 or other courses with permission.

PARALEGAL ASSISTANT

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

Introductory Courses

ENG 110 Written Expression I
PLA 110 Survey of Paralegalism
PSY 110 General Psychology or
SOC 110 Introduction to Sociology

Credits

3
3
3
3

Additional Courses for Certificate

ENG 120 Written Expression II or
SPK 102 Effective Speaking
PLA 120 Advanced Paralegalism
PLA 210 Legal Drafting
PLA 200 Real Property Law
PLA 205 Techniques of Research
PLA (Paralegal) Elective
BUS (Business) Elective

3
3
3
3
3
3
3
3

30

Remaining Courses for Degree

BUS 100 Accounting I
PLA 215 Estates, Probates & Trusts
PLA (Paralegal) Elective
Math/Science Electives
SOC (Social Science) Elective
Liberal Arts Electives
Free Electives

4
3
3
6
3
6
6

AAS Paralegal Assistant
Minimum Semester Credits

61

Suggested Math/Science Courses:

MAT 124, MAT 121, BIO 131, CHM 120, PHS 111, MAT
110, MAT 111

More Information:

Francis J. Short, Department Chairman
(Phone 771-5087)
Matthew Vitanza, Program Coordinator

Recommended Social Science Courses

PSY 217, SOC 210, ECO 110 or 111, POS 204.

Recommended Liberal Arts Courses

and free electives
Political Science (POS), Psychology (PSY), Economics
(ECO), Philosophy (PHI), Literature (LIT), Sociology
(SOC).

PART-TIME STUDENTS

LIBERAL ARTS

Associate in Arts

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
Liberal Arts Courses	6
Additional Courses for Certificate	
ENG 110 Written Expression I	3
ENG 120 Written Expression II	3
Approved Humanities	3
Approved Social Sciences	6
Approved Liberal Arts Courses	11
	32
Remaining Courses for Degree	
Remainder of degree requirements (see below)	30
AA Liberal Arts & Sciences	
Minimum Semester Credits	62

Minimum requirements for AA degree:
English—a minimum of 12 credits, of which 6 shall be in composition and 6 in literature
History—a minimum of 6 credits in approved courses including HIS 100 The Rise of the West
Humanities—a minimum of 6 credits (6 in Philosophy or 6 in a foreign language)
Mathematics—students who have completed fewer than 3 units of secondary school mathematics (through 11th year math) are required to take 2 semesters of college level mathematics • Students who have completed 3 units of secondary school mathematics (through 11th year math) are required to take one semester of college level mathematics • Students who have completed more than 3 units of secondary school mathematics (including 11th year math) are not required to take additional math. They may, however, elect an appropriate math course or an elective in another field
Natural and Physical Sciences—a minimum of 8 credits
Social Sciences—a minimum of 6 credits
Electives—minimum of 16 credits (A maximum of 15 credits may be taken outside the offerings in Liberal Arts & Sciences with the approval of the Dean of Liberal Arts)
Satisfactory completion of all courses in a curriculum or as approved in a department
The Associate in Arts program is structured to allow the greatest flexibility in course selection and sequence. It is recommended that students begin with the requirement in Written Expression, which is 6 hours of ENG 110 and ENG 120.

More Information:
George Higginbottom, LA Dean (Phone 771-5031)

Associate in Science

SCIENCE OPTION

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
ENG 110 Written Expression I	3
ENG 120 Written Expression II	3
Additional Courses for Certificate	
*2 Science Elective Sequences	16
HIS 100 Rise of the West	3
#Social Science Elective	3
†Mathematics or Philosophy or Foreign Language (see below)	6-8
	34-36
Remaining Courses for Degree	
*2 Science Elective Sequences	16
2 Literature Electives	6
History Elective	3
#Social Science Elective	3
AS degree in Liberal Arts	
Minimum Semester Credits	62-64

* "Sequences" in biology, chemistry, physics or physical science must be taken for each of these 2 science requirements. (Recommended: BIO 111, 112; BIO 151, 152; CHM 145, 146; PHY 161, 162; CHM 245, 246.) At least 8 hours must be at the 200 level.
Courses to be chosen from ANT, ECO, POS, PSY, SOC, SOS designators.
† If the Calculus and Analytic Geometry requirement was met the first year, electives must be Philosophy (6) or Foreign Language (6-8). Higher level math can only be elected by approval of Dean if transfer needs require it.

Students who have not passed Advanced Algebra or its equivalent in high school (usually 3½-4 high school units) should take Algebra and Trigonometry or Pre-Calculus the first year followed by a year of Calculus with Analytic Geometry in the second year. Only if students have the equivalent of Calculus with Analytic Geometry upon entry can they take the non-math elective.

More Information:
George Higginbottom, LA Dean (Phone 771-5031)

MENTAL HEALTH AND RETARDATION EMPHASIS

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses	Credits
ENG 110 Written Expression I	3
PSY 110 General Psychology	3
MAT Mathematics (MAT 124 Statistics recommended)	3
HIS 100 Rise of the West	3
Additional Courses for Certificate	
LAB Science (BIO 111 or 131 recommended)	4
ENG 120 Written Expression II	3
SOC 110 Introduction to Sociology	3
PHI Elective	3
LA Elective	3
PSY 223 Intelligence and Mental Retardation	3
	31

Remaining Courses for Degree	
LAB Science (BIO 112 or 132 recommended)	4
PSY 217 Counseling & Interviewing	3
SOS 288 Seminar in Community Social Service Organization	3
PSY 227 Behavior Modification	3
PSY 214 Abnormal Psychology	3
SOS 290 Social Science Field Work	3
Approved Electives in Mental Health & Retardation Emphasis (See page 52)	12
AS in Liberal Arts (Mental Health & Retardation Emphasis) Minimum Semester Credits	
	62

More Information:
Charles Croll, Program Coordinator (Phone 771-5021)

TOOL & DIE MAKING ASSOCIATE IN OCCUPATIONAL STUDIES

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed:

Introductory Courses

TDA 111 Blueprint Reading	3
MET 113 Engineering Drawing I	2
MET 114 Engineering Drawing II	2
MAT 139 Algebra	4
MAT 140 Trigonometry	4

Additional Courses for Certificate

TDA 113 Survey of Basic Industrial Safety & First Aid	2
TDA 114 Benchwork	2
MET 121 Manufacturing Processes I	3
MET 122 Manufacturing Processes II	2
BUS 255 Industrial and Labor Relations	2
TDA 120 Precision Measurement and Inspection	3
TDA 200 Metallurgy	2
TDA 130 Tool Grinding	2
TDA 140 Production Processes	3
Certificate in Machinist Related Instruction—Minimum Semester Credits	36

Remaining Courses for Degree

TDA 132 Statics	2
TDA 235 Strength of Materials	3
ENG 150 Technical Writing or ENG 110 Written Expressions I	3
BUS 252 Supervision of Personnel	2
ECO 104 Labor Economics and American Industry	3
EET 181 Installation and Maintenance of Electric Motors	2
TDA 261 Introduction to Quality Control and Inspection	3
TDA 248 Hydraulics and Pneumatics	3
TDA 250 Control Systems	3
TDA 230 Tool Design	4
MET 223 Manufacturing Processes III	2
Associate in Occupational Studies (AOS) in Tool & Die Making	66

Credits

3
2
2
4
4

2
2
3
2
2
3
2
2
2
3

36

2
3
3
2
3
2
3
3
3
4
2

66

More Information:

Mechanical Engineering Technology Chairperson (Phone 771-5010) is the program coordinator.

CERTIFICATE PROGRAMS

DIETARY MANAGER (Leads to Certificate)

This program is designed for individuals already employed in the food service field, as there is a requirement for supervised work experience by a Registered Dietician. All persons entering the program are responsible for finding a preceptor, and registrations are on a pre-application basis.

	Credits
DIA 101 Nutrition	3
DIA 102 Institution Food Preparation	3
DIA 201 Food Management Systems	3
DIA 202 Personnel Management	3
Apply for Certificate—Dietetic Assistant	12

More Information:

Coordinator Appointment Pending (Phone 771-5161)
Joseph K. Gay (Phone 771-5161)

LIBERAL ARTS & SCIENCES General Studies Emphasis (Leads to Certificate)

	Credits
English	6
Social Sciences & Humanities	18
Approved Electives	8
Liberal Arts Certificate (General Studies Emphasis)	32

The awarding of this certificate does not necessarily mean the student is a candidate for the Associate in Arts degree. Courses must have approval of the Liberal and General Studies Division, however, to insure that work is appropriate for the Associate in Arts Degree.

More Information:

George Higginbottom, LA Dean, 771-5031

Students desiring less than the full academic experience offered in this program can earn the Machinist Related Instruction Certificate. This consists of completing 36 of the 66 credits listed at left. Students are advised to check with the program coordinator before making this decision.

INTERIOR DESIGN (Leads to Certificate)

This is a credit program for individuals interested in a career in interior design or those currently employed in home furnishings or design related fields who would like to obtain greater knowledge and expertise. Those whose interests in design are not job-related are also encouraged to enroll.

Full-time Liberal Arts students are referred to the Interior Design Model for the A.A. degree on page 50.

	Credits
ART 101 Introduction to Art	3
ART 105 Introduction to Design	3
INT 101 History of Architecture— Exterior and Interior	3
*INT 110 Interior Design I	4
*INT 111 Interior Design II	4
INT 120 Construction and Workroom Techniques I	2
INT 121 Specification Writing for Interior Designs	2
INT 130 Rendering	2
INT 140 Fabric Analysis	2
CIV 159 Architectural Drafting I	2
BUS 262 Small Business Management	3
Total	30

* These courses have prerequisites

More Information:

Robert Keller, Program Coordinator (Phone 771-5075)

GENERAL OFFICE (Leads to Certificate) See page 60

This program can be taken as a full-time one-year program or taken as a part-time program either daytime or evening.

Center For Community Education

Broome Community College has an extensive non-credit community education program of courses, seminars and special events. The program receives about 6,000 registrations each year in its open enrollment programs, serving the community's career development, cultural, and recreational needs.

Career Development

This category consists of courses and seminars designed to update professional skills or introduce participants to new career areas. Recent programs have included such courses as Secretarial Refresher, American Management Association courses, Refresher Nursing, and Microprocessor Applications for Engineers, and Industrial Robotics.

Corporate Service

The Corporate Service Program at Broome Community College is designed to demonstrate the College's commitment to local economic development. The Program's principal mission is to produce quality education and training packages for area corporations.

Course content, materials and presentations are tailored to fit the unique needs of each client. Classes may be scheduled during the more traditional day or evening time frame or around the specific shift schedules of the company. Most employee training programs can take place on the employer's premises, thus minimizing lost employee work time.

Course topics include communication skills, management seminars, safety training, technical programs, personal planning programs.

For additional information on contract education programs, call the Corporate Service Program in the Center for Community Education (771-5056).

Leisure Time Mini Courses

These are short term courses designed to explore a variety of personal interests, hobbies, crafts and recreational areas. Recent programs have included aerobics, assertiveness, tennis, Singles Night, home decoration, personal investing, and microwave cooking.

College for Kids

One of the most popular credit-free areas is a program specially designed for kids—from elementary schoolers to high school students. Regular offerings include:

- Computers for Kids
- Drawing for Kids
- Conversational Foreign Languages for Kids
- Science for Kids

Generally these short term offerings are scheduled on Saturday mornings throughout the year.

Conferences and Seminars

The College conducts workshops and seminars in a variety of topics throughout the year. These are intended to update job skills and explore new fields of interest. Some of the seminars have been for law-enforcement personnel, women seeking jobs and educational information, volunteer firemen, community agencies, and business and industry employees.

Tour Programs

The College regularly sponsors a variety of charter tours to places such as The Saratoga Performing Arts Center, The Brooklyn Botanical Gardens, St. Maarten's, Florida and Atlantic City.

Registration

Community Education Programs are offered continuously throughout the year. Free flyers list the courses, with their descriptions, times, dates, fees. A form is included in each term's flyer for easy mail-in registration. Registrations are accepted on a first-come, first-served basis.

Course Development

Programs are a joint effort between Broome Community College faculty, community people, area agencies, organizations and business firms. Groups interested in teaching or co-sponsoring a course are encouraged to discuss the possibilities with the College's Center for Community Education. Many programs offered each year come about because someone suggested them, or a group was concerned about a real need in the community. A teaching interest and course proposal form is available for individuals wishing to teach a particular subject. These forms will be mailed upon request. Call 771-5056.

Continuing Education Units

Broome Community College awards Continuing Education Units (CEU's) for selected non-credit courses. These Continuing Education Units are offered in response to those students and employers who desire a measurable and understandable record of non-credit educational activities. Courses which carry CEU's and the number of CEU's granted for each course are identified prior to the start of the course.

Certificate of Participation

Certificates of Participation are given to those participants completing a non-credit course. Many employers fund participation in these courses; information is available in the company's personnel department.

Course Descriptions

All courses listed in this section are scheduled to be offered during the 1985-86 academic year, unless otherwise indicated. The offering of any course, however, is subject to sufficient enrollment. Courses numbered from 100 to 199 are generally first-year courses, and those numbered in the 200's are usually taken in the second year. The number of credits listed for each course is for a semester, while the number of class hours and laboratory hours is for a week, unless otherwise stated.

BUSINESS COURSES IN ACCOUNTING, BUSINESS ADMINISTRATION, MANAGEMENT, MARKETING

BUS 100 Accounting I

4 Credits

Introduction to accounting principles and procedures necessary to complete the accounting cycle. How computers can be applied to accounting systems. Emphasis on journals, ledgers, adjustments, financial statements, merchandising, transactions, valuation of inventories, payroll procedures.

4 Class Hours

BUS 101 Accounting II

4 Credits

Expansion of the fundamental concepts and procedures of accounting. How computers can be applied to accounting systems. Emphasis on internal control, voucher systems and cash transactions, receivables and payables. The acquisition, depreciation and disposal of plant assets. Accounting methods and procedures relating to partnerships and the corporate form of business organizations. Manufacturing with emphasis on the special problems and additional accounting procedures to measure, control and report factory production costs.

4 Class Hours

Prerequisite: BUS 100 Accounting I

BUS 102 Payroll Accounting

2 Credits

A comprehensive study of Federal and State laws and regulations affecting payrolls and payroll taxes. Practical report preparation and reporting requirements. Proper accounting practices to record payroll taxes.

2 Class Hours

***BUS 104 Introduction to Credit Unions**

3 Credits

Basic introduction to credit unions by those who have no previous knowledge of these financial cooperatives. Nature of credit unions, their history and philosophy, overview of the structure of the credit union movement and affiliated organizations including the National Credit Union Administration (NCUA). Legal basis for the operation of credit unions, their powers and characteristics including share drafts and VISA cards and the traditional services they offer. Roles and functions of credit union management. The developing financial system and basics of insurance and bonding for credit unions.

3 Class Hours

***BUS 105 Credit Union Financial Operations**

3 Credits

The financial management skills needed to operate a credit union, with emphasis upon basic credit union accounting including financial statement analysis and budgeting. Implications of risk management and insurance, along with investment procedures. Marketing and communications. Some bookkeeping experience is recommended as a prerequisite.

3 Class Hours

***BUS 106 Basic Credit Union Operations**

3 Credits

Loan granting, financial counseling, collections. Aspects of credit granting skills, loan policies and current regulations concerning the Equal Credit Opportunity Act (ECOA) and truth-in-lending. Financial counseling skills, including interviewing to techniques and methods of personal finance. Collection systems and delinquency control, emphasizing written and telephone methods of recovering delinquent accounts. Credit unions and the law.

3 Class Hours

BUS 110 Introduction to Business

3 Credits

General background of modern business practices through the study of organization and management, production, human resources, accounting and finance, marketing, and the information needed for control and management decisions in business and society.

3 Class Hours

BUS 112 Quantitative Business Methods

2 Credits

Application of fundamental arithmetic computations to practical business problems. Emphasis on bank records, percentages, markups, cash and trade discounts, overhead distribution, simple interest and negotiable instruments, depreciation, inventory estimation and valuation.

2 Class Hours

BUS 115 Business Statistics

3 Credits

Concepts and mechanics of measures of central tendency, measures of dispersion, probability, sampling theory, estimation, hypothesis testing, and correlation as they relate to general problems in business and economics.

3 Class Hours

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

BUS 117 Business and Society**3 Credits**

The role of business in the contemporary world. Increasingly difficult parameters for business despite the growing demands of accountability from government and of social responsibility from consumers. Business values and ethics, the role of business and government, environmental issues and energy policy, business and labor, business and consumer, the influence of multi-national corporations.

3 Class Hours**BUS 118 Business Law I****3 Credits**

Law as an evolutionary and democratic process. Court structure, administrative law, law-of-contracts, legal principles of agency, employment rights and an introduction to partnership.

3 Class Hours**BUS 120 Business Law II****3 Credits**

The law governing the negotiation or transfer of commercial paper and the sale of personal property. The law of personal and real property and sundry topics: bailments, insurance, landlord-tenant relationships, corporate and labor law.

3 Class Hours**Prerequisite:** BUS 118 Business Law I***BUS 125 Real Estate Law****5 Credits**

For real estate people preparing for the New York State Real Estate Broker's Licensing Examination. Under the supervision of the New York State Department of Licenses. (Credits applicable only to Business program with prior approval from one's academic advisor.)

5 Class Hours**BUS 129 Consumer Behavior****3 Credits**

Emphasizes the development of how people make purchase decisions in the market place. Consumer decision-making, learning, brand loyalty and market segmentation.

3 Class Hours**BUS 131 Personal Finance****3 Credits**

Guidelines to everyday financial problems regarding budgeting, installment buying, credit, insurance, taxes, savings, investments and purchasing items that require long-term financing such as a home or automobile.

3 Class Hours***BUS 135 Investments****2 Credits**

Application of sound investment principles as they relate to stocks and bonds. Importance of the stock markets, their operation and their place in our society. Current happenings such as over-all market behavior, stock splits, rights and offerings are studied in various companies, making the subject matter current and relevant to financial events of the day. A model portfolio approach with weekly review by class participants.

2 Class Hours**BUS 141 Marketing****3 Credits**

Introductory study of Marketing as an art and a science. Analysis of the basic principles and practices necessary to complete the marketing cycle effectively. Marketing of goods and services, from conception of the original product idea to delivery to the ultimate consumer. Marketing mix, marketing concept, environmental and societal constraints. Lecture, discussion, cases.

3 Class Hours**BUS 152 Selling Fundamentals****3 Credits**

Principles of sales with practical application. Steps leading to a successful sale — prospecting, planning and delivering, dramatizing, handling objections, closing, building good will. Development and presentation of a complete procedure for a product or service. Closed-circuit television used to critique sales presentations.

3 Class Hours***BUS 154 Purchasing****3 Credits**

Analytical approach to techniques employed in the industrial purchasing phase of marketing. Emphasis on the organization of the purchasing functions as an operational unit of the firm directed toward procurement activities.

3 Class Hours**BUS 161 Real Estate Appraisal****3 Credits**

Designed to acquaint participants with the appraisal process of real property. Market approach, income approach and cost approach to value. Activities designed to build appraisal skills through case study, prepare appraisal reports and analyses.

3 Class Hours***BUS 163 Real Estate for Salespersons****4 Credits**

Designed to meet New York State requirements for licensure as a real estate salesperson. Land use regulation, law of contracts, real estate instruments, real estate mathematics, real estate finance, closing and closing costs, brokerage and the law of agency, valuation and listing procedures, license law and ethics, human rights and fair housing.

4 Class Hours***BUS 164 Real Estate for Brokers****4 Credits**

Designed to meet New York State requirements for licensure as a real estate broker. Land use regulation, operation of a real estate broker's office, general business law construction, subdivision and development, leases and agreements, liens and easements, taxes and assessments, investment property, voluntary and involuntary alienation, property management, condominiums and cooperatives, appraisal, advertising, rent regulations.

4 Class Hours**Prerequisite:** BUS 163 Real Estate for Salespersons***BUS 165 Insurance****3 Credits**

Insurance principles and coverage, types of carriers, organizations, history of insurance, analysis of types of coverage available for business and individuals in the casualty and life fields.

3 Class Hours***BUS 166 Property and Casualty Insurance****3 Credits**

Common policy provisions relating to property and casualty insurance and surety. Topics include automobile liability and physical damage, workmen's compensation, general liability, New York Insurance Law, rating and multi-line coverage.

3 Class Hours***BUS 170 Insurance for Agents and Brokers****6 Credits**

Comprehensive survey of insurance. Fire, marine, automobile, owner liability, burglary, boiler, machinery, accident and health, fidelity and surety insurance. Insurance law and duties of the agent.

6 Class Hours**BUS 176 Real Estate Finance****3 Credits**

Analysis of theories, practices and policies of real estate financing. Mortgage theory and lending practices in addition to alternative means of financing real property in the contemporary market. Case practices to build analytical skills in selecting different financing approaches.

3 Class Hours***BUS 188 Income Tax I****2 Credits**

Fundamental Federal and New York State income tax rules and regulations for filing personal income tax forms. Gross income inclusions and exclusions, adjustments to income, tax credits, estimated taxes, itemized deductions, penalties and avoidance, amended tax returns.

2 Class Hours***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

BUS 189 Income Tax II*2 Credits**

Preparation of supplementary tax forms, such as capital gains, rentals, income averaging, sole proprietorship, self employment taxes, investment credit, corporation tax returns, sub-chapter S corporations, gift and inheritance taxes.

2 Class Hours**BUS 200 Intermediate Accounting I****4 Credits**

An intensive study of accounting theory and procedures. Emphasis on balance sheet accounts and their interrelationships with income statement accounts. The accounting process and correction of errors. Advanced treatment of cash, receivables, inventories.

4 Class Hours**Prerequisite:** BUS 101 Accounting II**BUS 201 Intermediate Accounting II****4 Credits**

A more advanced treatment of accounting for fixed assets, intangible assets, current and long-term liabilities. Corporation accounting, funds flow reporting, financial statement analysis.

4 Class Hours**Prerequisite:** BUS 200 Intermediate Accounting I**BUS 205 Cost Accounting I****4 Credits**

Nature and purpose of cost accounting. Job order and process costing. Accounting for factory overhead and analysis of variances. Accounting for labor and material.

4 Class Hours**Prerequisite:** BUS 101 Accounting II**BUS 206 Cost Accounting II****4 Credits**

Further consideration of cost accounting principles, standard costs and variances. The construction of budgets, profit planning. Flexible budgets. Direct costing. Break even analysis. Accounting for by-products and joint products. Non-manufacturing costs.

4 Class Hours**Prerequisite:** BUS 205 Cost Accounting I**BUS 210 Managerial Accounting****4 Credits**

Accounting for managerial analysis and decision making, providing an analysis of accounting data useful in the planning and control functions of a firm. Advanced study of cost behavior, use of relevant costs in decision making, forecasting and performance measurement.

4 Class Hours**BUS 211 Business Applications on the Microcomputer****3 Credits**

Use of the IBM-PC and application software including a word processor, spreadsheets, and a file management system as a problem-solving tool for business.

3 Class Hours**BUS 224 Business Finance****3 Credits**

Financial principles and procedures of capital management. Analysis of the relationship of finance to micro and macro economic factors such as inflation business cycles, competition, regulation. Emphasis on corporate goals and objectives as a determining factor in the choice of financial management policy. Application of financial ratios, cash budgeting, forecasting, leverage, working capital policy, capital markets, stock and bonds, valuation, and other basic areas of finance.

3 Class Hours**BUS 229 Advertising****4 Credits**

Development, economies, functions of advertising. Cost application, media, testing and research methods. Development of advertisements, copy and layout, methods and problems of reproduction. Planning the advertising campaign with step by step developments. Lectures, discussions, demonstrations. BUS 141 Marketing is recommended as preparation for this course.

4 Class Hours**BUS 238 Marketing Research****3 Credits**

Methods of collecting and interpreting marketing information which affect marketing management. Specific applications to problem identification in market development, gauging market potential and implementation of research designs in the market place. It is suggested that BUS 115 Business Statistics be taken prior to this course.

3 Class Hours**BUS 242 Marketing Seminar****3 Credits**

Senior capstone course which integrates various business subjects previously studied. Individual and team approach to analysis of comprehensive marketing and management cases and cooperative consideration of alternative decisions to problem solving. For non-Marketing majors.

3 Class Hours**Prerequisite:** Permission of Chairperson of Business Department**BUS 245 Management: A Behavioral Approach****3 Credits**

A comprehensive analysis of managerial theories and an integration of selected social sciences to investigate organizational problems related to managerial functions. Impact of the organizational environment and work groups upon human behavior.

3 Class Hours***BUS 246 Principles of Management****3 Credits**

Principles of managerial practices. Planning, organizing, directing, and controlling. Exposes students to proper methods and techniques to achieve employee and job satisfaction. Topics covered include scientific management, behavioral theory, and introduction to management science.

3 Class Hours***BUS 247 Sales Management****3 Credits**

Development of control techniques in the administration of sales forces. Incentive systems, territory planning, development of sales potentials, personnel problems peculiar to this field.

3 Class Hours**BUS 249 Personnel Management****3 Credits**

Principles of managerial practices. The four functions of management — planning, organizing, directing and controlling. Designed to expose the student to the proper methods and techniques to achieve employee and job satisfaction. Processing, developing, maintaining and proper utilizing of the labor force. A review of the history and impact of organized labor incorporating economic, political and social pressures which influence employment. Effective interview poise, personal appearance, interviewing techniques, job opportunities and placement services. Correct preparation of a resume and the utilization of references.

3 Class Hours***BUS 252 Supervision of Personnel****2 Credits**

Concepts and psychology of personnel supervision. Emphasis on the application of management theory through use of case studies and classroom discussions.

2 Class Hours***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

BUS 253 Selling Fundamentals**3 Credits**

Principles of sales with practical applications. Steps leading to a successful sale-prospecting, planning and delivering, dramatizing, handling objections, closing, building goodwill. Development and presentation of a complete procedure for a product or service. Closed-circuit television used to critique sales presentations.

3 Class Hours***BUS 255 Industrial Labor Relations****2 Credits**

Processes of bargaining and contract administration between industrial employers and unions representing employees, as a system of compromising opposing objectives and settling differences. Origins of unions, how they organize and gain recognition and how the labor agreement is negotiated and administered. Interaction among employees, stewards and supervisors. Labor laws. Institutions such as the National Labor Relations Board, mediation services, arbitration boards and courts. (Completing this course will not give students credit for BUS 256 Labor Relations for Business and Industry).

2 Class Hours**BUS 256 Labor Relations for Business and Industry****3 Credits**

Analysis of labor relations and collective bargaining procedures. Policies of organized labor, employers and government in solving labor-management disputes. Grievance procedure, wage and price policies, arbitration, mediation, negotiations and labor contracts.

3 Class Hours***BUS 258 Human Relations in Business****2 Credits**

Basic psychological principles applied to the problems of employee selection, training, evaluation, merit rating and advancement. Social interaction and human relations in industry. Motivation concepts and techniques, job satisfaction, morale, conference leadership and employee and management development.

2 Class Hours**BUS 259 Business Report Writing****3 Credits**

Training in logical analysis of business case problems, applied to the preparation of accurate written reports. Methods and skills in formal and informal business writing. Preparation of tables, charts, reference citations, and bibliographies. Improvement of basic business writing skill involved in interoffice memos, letters of adjustment, bids, quotations, public relations.

3 Class Hours**BUS 261 Office Management****2 Credits**

A comprehensive study of modern management principles and practices in office organization, operation and control. Office layout, personnel, office equipment, processing of information and the planning, flow and measurement of work within the office.

2 Class Hours**BUS 262 Small Business Management****3 Credits**

Designed for those interested in small business as owner-managers. Development of modern management techniques covering forms of organization, site acquisition and location, insurance, marketing, financing, pricing, breakeven, permits, licenses and franchising.

3 Class Hours**BUS 264 Retailing****3 Credits**

Fundamentals of purchasing, merchandising, pricing, promotion. Principles of retail management. Coordination of accounting and basic marketing concepts at the market focal point.

3 Class Hours**BUS 270 Decision Making****3 Credits**

An introduction to managerial problems relating to the planning and controlling functions, which provide guidelines to making rational decisions. A realistic approach utilizing cases and simulation is taken to expose the student to quantitative as well as subjective analysis to point out the constraints placed upon management.

3 Class Hours**Prerequisite:** BUS 115 Business Statistics**BUS 295 Accounting Seminar****4 Credits**

In-depth treatment of accounting for payroll taxes followed by actual completion of required state and federal tax forms. Thorough coverage of the Individual Tax Form 1040, schedules A, B, C, D, E and G, small business taxes, schedules C, SE, and investment credit, Corporate Tax Form 1120. Accounting concepts and current trends in accounting as reflected through financial statement analysis.

4 Class Hours**BUS 297 Cooperative Work Experience****1-3 Credits**

Cooperative education is available to students in the marketing management, marketing sales and accounting curriculums. On-the-job experience may be obtained in such areas as retailing, banking, fast foods, government services and hotel management, as well as in CPA firms, public accounting offices, industrial, business and government offices where accounting is performed. Cooperative work students will meet with the coordinator one hour each week.

Prerequisite: Full-time student (minimum of 12 credit hours) maintaining an over-all cumulative grade-point average of 2.5, with 3.00 in Business courses and no F's.

BUS 299 Independent Study**1-4 Credits**

The student, under the guidance of a faculty member, undertakes an investigation, study and research in an advanced concept or problem concerning his/her major field of study. Only one independent study course is allowed per semester.

Prerequisite: Approval of Faculty Member and Department Chairperson**ANTHROPOLOGY****ANT 110 Physical Anthropology and Archaeology****3 Credits**

Introduction to human evolution, variation and prehistory. The Darwinian Revolution, mechanisms of evolution, the fossil record, domestication of plants and animals, the rise of civilization. Prehistory topics may include Americas, Africa, Middle East, Asia.

3 Class Hours**ANT 111 Cultural Anthropology****3 Credits**

Introduction to the study of culture as the behavioral adaptation unique to human societies. Cultural characteristics shared by all humans and major variations found among specific groups. Explanations for rules of social interaction in common activities, the social functions of institutions such as marriage and kinship, the ecological basis of many institutions, language as a culturally defined system of communication, modernization in our own and third world societies.

3 Class Hours**ANT 299 Independent Study****1-3 Credits**

An individual student project in anthropology which is beyond the scope of requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: 3 semester hours in Anthropology***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

ART

ART 101 Fine Arts: Introduction to Art **3 Credits**
Basic art principles and concepts together with their historical development as shown in representative works of painting, sculpture and architecture. Gallery visits.
3 Class Hours

ART 105 Introduction to Design **3 Credits**
Introduction to various elements of two-dimensional design (color, composition, texture).
2 Class Hours, 2 Studio Hours

ART 106 Introduction To Three-Dimensional Design **3 Credits**
Exploration of esthetic and functional elements of three-dimensional design through studio, projects and architectural forms and space. Projects in wood, paper, pigment, twine, plaster of Paris.
2 Class Hours, 2 Studio Hours

ART 115 Drawing **3 Credits**
Intensive drawing instruction in charcoal, pencil, pen and ink, pastel and mixed media, life drawing, still-life composition.
6 Studio Hours

ART 116 Painting I **3 Credits**
Beginning painting instruction and practice of oil painting, still-lives, landscapes.
6 Studio Hours
Prerequisite: ART 115 Drawing or Instructor's permission

ART 120 Sculpture Fundamentals **3 Credits**
Abstract elements of sculptural form as revealed through analysis of student work and historical examples. Emphasis on developing the student's ability to utilize concepts in practice and to expand his/her understanding of the general function of form as symbolic structure. (Not offered in 1985-86 academic year).
6 Studio Hours

ART 130 Pottery **3 Credits**
Study of the basic processes of the design and creation of ceramics, both functional and sculptural. Fundamentals of hand-building, potter's wheel, glazing and firing.
6 Studio Hours

ART 140 Printmaking **3 Credits**
Three equal parts to course — linecut, woodcut, monotype. Explanation, uses, technical demands, potential and limitation of each process. Students to develop images for blocks or plates.
6 Studio Hours

ART 215 Painting II **3 Credits**
Continuation of painting instruction and practice done in ART 116 Painting I.
6 Studio Hours
Prerequisite: ART 116 Painting I or instructor's permission

ART 216 Painting III **3 Credits**
Painting from costumed model; advanced composition devices.
6 Studio Hours
Prerequisite: ART 116 Painting II or instructor's permission

ART 220 Life Sculpture **3 Credits**
The principles of abstract form applied to the human body, and the expressive possibilities of the human figure explored. Studies of actual models in oil-base clay later to be cast into plaster or carved in wood or stone (Not offered in 1985-86 academic year).
6 Studio Hours

Independent Study: Art **1-3 Credits**
ART 297 Sculpture
ART 299 Art History
An individual student project concerned with advanced work in a specific area of art. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.
Prerequisite: 3 semester hours of college level work in Art.

BIOLOGY

BIO 111 General Biology I **4 Credits**
Principles of evolution and ecology as unifying themes in biology. Evolutionary processes and ecological adaptations illustrated by plant and animal diversity. The community of cellular life processes. Current environmental problems. The laboratory includes physically demanding field trips.
3 Class Hours, 3 Laboratory Hours

BIO 112 General Biology II **4 Credits**
Principles of evolution and ecology as unifying themes in biology. The human animal and its systems. Concepts of animal behavior. Classical genetics, current concepts of gene function and human genetics. Organismal growth and development. Current environmental problems. The laboratory includes physically demanding field trips.
3 Class Hours, 3 Laboratory Hours

BIO 120 Human Sexuality **3 Credits**
Explores information about sexual attitudes, relationships, sexual anatomy, contraception, venereal disease. Course aims to make students feel more comfortable thinking and talking about sex and to prepare them to make rational decisions about this important aspect of their lives.
3 Class Hours

BIO 131 Human Biology I **4 Credits**
Normal structure (gross and microscopic) and function of the skeletal, muscular and nervous systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.
3 Class Hours, 2 Laboratory Hours

BIO 132 Human Biology II **4 Credits**
A continuation of BIO 131 Human Biology I covering the circulatory, respiratory, digestive, urinary, reproductive and endocrine systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.
3 Class Hours, 2 Laboratory Hours
Prerequisite: BIO 131 Human Biology I or permission of instructor

BIO 140 Pathophysiology

Symptoms, syndrome and etiology of pathogenic processes affecting the function and structure of the body.

3 Class Hours

Prerequisite: BIO 132 Human Biology II

3 Credits

BIO 150 Microbiology

The biology of the common bacteria and related microorganisms. General microbiology including asepsis, disinfection, sterilization, cultivation, pathogenicity, resistance, identification.

3 Class Hours, 3 Laboratory Hours

4 Credits

BIO 151 Aquatic Biology

A study of how light, temperatures and water chemistry influence the plants and animals which live in ponds, lakes, rivers and estuaries. Current and future ecology. Local, regional and national water related problems including pollution, waste water treatment, ground water contamination, acid rain, water recycling, salt water encroachment, wetland destruction.

3 Class Hours, 2 Laboratory Hours

4 Credits

BIO 160 Microbiology

Position of microorganisms in the biological world, as well as their cultivation and identification. Asepsis, disinfection and sterilization. Disease transmission and the human elements in defense. For Medical Office Assistant and Dental Hygiene students.

2 Class Hours, 3 Laboratory Hours

3 Credits

BIO 170-199 Special Topics in Biology

Special courses covering particular topics in the biological sciences beyond the scope of the normal course offerings.

1-2 Credits

BIO 171 Physiology of Exercise

Designed to develop an understanding and appreciation for the role of consistent exercise in maintaining good health. The interrelationship of the muscular, cardiovascular, respiratory and digestive systems and the net effect of training on these systems.

1 Class Hour

1 Credit

BIO 200 Ecology of the Everglades

A scientific yet sensitive look at one of the world's rare and endangered wilderness areas. Everglades ecology is studied through an extensive wilderness camping experience involving a minimum of 90 hours of instruction.

3 Class Hours, 3 Laboratory Hours

4 Credits

BIO 299 Independent Study

An individual student project in a biological field which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson. Independent Study is available to students who have completed a minimum of 3 semester hours of biology.

1-3 Credits

CHEMISTRY AND CHEMICAL ENGINEERING TECHNOLOGY

CHM 102 Preparatory Chemistry

Introductory course in chemistry emphasizing problem-solving techniques related to chemical concepts. Atomic structure, stoichiometry, metric units, chemical bonding, chemical nomenclature, solution chemistry.

4 Class Hours

4 Credits

CHM 120 Fundamental Chemistry

First course for Fire Protection Technology, Health Sciences and Criminal Justice students. Composition of substances, atomic structure, periodicity, bonding, chemical equations, states of matter, aqueous solutions, chemical equilibria and introduction to organic chemistry.

3 Class Hours, 3 Laboratory Hours

4 Credits

CHM 121 Forensic Sciences

Introduction to forensic chemistry for Criminal Justice students. Examination of firearms, cartridges, explosives, drugs and other types of physical evidence. Emphasis on proper handling of substances found in crime scene investigations. Laboratory techniques include many modern instrumental methods, such as gas chromatography, infrared and mass spectroscopy.

3 Class Hours, 3 Laboratory Hours

Prerequisite: CHM 120 Fundamental Chemistry or permission of department

4 Credits

***CHM 125 Chemistry**

Fundamental concepts of inorganic chemistry. Composition of substances, kinetic and molecular theories, atomic structure and bonding, solutions and colloids, ions in solution and introduction to organic chemistry. For Fire Protection Technology students.

2 Class Hours, 3 Laboratory Hours

3 Credits

CHM 131 Chemistry I

Fundamental concepts of general inorganic chemistry. Stoichiometry, atomic structure, periodicity, chemical bonding, kinetic theory, states of matter, acids, bases and chemical equilibria. For Medical Laboratory Technology students.

3 Class Hours

Corequisite: CHM 131L Chemistry Laboratory I

3 Credits

CHM 131L General Chemistry Laboratory I

Experiments illustrating concepts from lecture and important laboratory techniques with strong emphasis on careful, accurate recordkeeping. A number of the experiments are qualitative, the rest quantitative.

3 Laboratory Hours

Corequisite: CHM 131 General Chemistry I

1 Credit

CHM 132 General Chemistry II

Continuation of CHM 131 General Chemistry I including the study of chemical thermodynamics, equilibria, kinetics, electrochemistry, advanced bonding theory, coordination chemistry and the chemistry of the representative metals and non-metals. For Medical Laboratory Technology students.

3 Class Hours

Prerequisites: CHM 131 General Chemistry I and CHM 131L General Chemistry Laboratory I

Corequisite: CHM 132L General Chemistry Laboratory II

3 Credits

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

CHM 132L General Chemistry Laboratory II

1 Credit

Experiments illustrating concepts from lecture, including eight weeks of classical volumetric analysis and experiments involving chemical equilibrium and colligative properties of solutions. Emphasis on careful, accurate recordkeeping.

3 Laboratory Hours

Prerequisites: CHM 131 General Chemistry I and CHM 131L General Chemistry Laboratory

Corequisite: CHM 132 General Chemistry II

CHM 133 Survey of Organic Chemistry

3 Credits

Fundamental treatment of organic chemistry. Nomenclature, properties of selected functional groups, mechanisms, stereochemistry and synthetic methods. Special emphasis on biomolecules such as lipids, carbohydrates, nucleic acids, vitamins and medicinally active compounds

3 Class Hours

Prerequisite: CHM 131 General Chemistry I and CHM 131L General Chemistry Laboratory I

Corequisite: CHM 132 General Chemistry II and CHM 132L General Chemistry Laboratory II and CHM 133L Survey of Organic Chemistry Laboratory

CHM 133L Survey of Organic Chemistry Laboratory

1 Credit

Emphasis on techniques of separation, identification and purification by classical and instrumental methods such as gas chromatography and spectroscopy, and selected experiments with biomolecules

4 Laboratory Hours

Prerequisite: CHM 131L General Chemistry Laboratory I

Corequisite: CHM 133 Survey of Organic Chemistry

CHM 141 General Chemistry

3 Credits

Introductory treatment of general chemistry for the non-science student emphasizing applications of chemistry in everyday life. Measurements, atoms and bonding, the states of matter, nuclear processes, oxidation and reduction solutions, acids and bases. Applications include energy sources, effects of radiation, the environment, life processes, testing of advertising claims. For Liberal Arts non-science students

3 Class Hours

Corequisite: CHM 141L General Chemistry Laboratory

CHM 141L General Chemistry Laboratory

1 Credit

Experiments to introduce chemical laboratory techniques while increasing awareness of the chemical world and to attain some insight into how a chemist attacks a problem. Qualitative and quantitative measurements.

3 Laboratory Hours

Corequisite: CHM 141 General Chemistry

CHM 142 General Chemistry

3 Credits

Continuation of CHM 141 General Chemistry. Basic concepts of organic and biochemistry. Petroleum, halogenated hydrocarbons, plastics, drugs, consumer products, living systems, food and metabolism., For Liberal Arts non-science students.

3 Class Hours

Prerequisite: CHM 141 General Chemistry

Corequisite: CHM 142L General Chemistry Laboratory

CHM 142L General Chemistry Laboratory

1 Credit

A continuation of CHM 141L General Chemistry Laboratory emphasizing organic and biochemical experiments. Synthesis, preparation of aspirin, soaps and detergents, dyes, plastics. Substantiate classroom lectures: water hardness, preparation of aspirin, soaps and detergents, dyes, plastics, etc.

3 Laboratory Hours

Prerequisite: CHM 141L General Chemistry Laboratory

Corequisite: CHM 142 General Chemistry

CHM 145 Chemistry

3 Credits

Comprehensive treatment of general chemistry for the science oriented student. Builds on their prior chemistry, with emphasis on the basic laws and theories of chemistry and their derivation from experimental evidence. Presents the qualitative and quantitative aspects of matter's composition and changes and their unifying principles. Includes physical and chemical properties, periodicity of elements, stoichiometry, current atomic and bonding theories, laws and theories of physical states and changes of state, solution chemistry.

3 Class Hours

Prerequisite: Regents Chemistry or CHM 102 Preparatory Chemistry

Corequisite: CHM 145L Chemistry Laboratory

CHM 145L Chemistry Laboratory

1 Credit

Laboratory experiments to emphasize the empirical basis for the principles discussed in lecture and the proper gathering and interpretation of experimental data.

3 Laboratory Hours

Corequisite: CHM 145 Chemistry

CHM 146 Chemistry

3 Credits

Continuation of CHM 145 Chemistry including thermochemistry, kinetics, equilibrium, equilibrium in aqueous solution, coordinating chemistry and electrochemistry.

3 Class Hours

Prerequisite: CHM 145 Chemistry

Corequisite: CHM 146L Chemistry Laboratory

CHM 146L Chemistry Laboratory

1 Credit

Continuation of CHM 145L Laboratory with emphasis on pH, spectrophotometric and potentiometric instruments and techniques and qualitative analysis.

3 Laboratory Hours

Prerequisite: CHM 145L Chemistry Laboratory

Corequisite: CHM 146 Chemistry

CHM 161 Chemistry

3 Credits

Basic concepts underlying chemical action emphasizing measurement, basic chemical calculations, atomic structure and the periodic law. Chemical bonding, states of matter, solutions, kinetic/molecular theories, chemical equilibrium and energy changes in chemical reactions.

3 Class Hours

Prerequisite: Regents Chemistry or CHM 102 Preparatory Chemistry

Corequisite: CHM 161L Chemistry Laboratory

CHM 161L Chemistry Laboratory

1 Credit

Experiments illustrating concepts from lecture. Emphasis on keeping a laboratory notebook and on laboratory skills required for the chemical laboratory. Exercises mostly quantitative in nature.

3 Laboratory Hours

Corequisite: CHM 161 Chemistry

CHM 162 Chemistry

3 Credits

A continuation of CHM 161 Chemistry. Oxidation-reduction and electrochemistry, acids, bases and salts. Solubility product principle, acid/base equilibrium, thermodynamics. Principles of qualitative analysis.

3 Class Hours

Prerequisite: CHM 161 Chemistry and CHM 161L Chemistry Laboratory

Corequisite: CHM 162L Chemistry Laboratory

CHM 162L Chemistry Laboratory**1 Credit**

Experiments illustrating concepts from lecture, including seven weeks of semi-micro qualitative analysis. Emphasis on laboratory skills and notebookkeeping.

3 Laboratory Hours

Prerequisites: CHM 161 Chemistry and CHM 161L Chemistry Laboratory

Corequisite: CHM 162 Chemistry

CHM 221 Organic Chemistry**3 Credits**

Nomenclature, properties of selected functional groups, mechanisms, stereochemistry, synthesis and spectroscopy. The laboratory emphasizes techniques of separation, identification and purification by classical methods and instrumental methods such as gas chromatography and spectroscopy. For Medical Laboratory Technology students.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CHM 132 Chemistry

CHM 222 Organic Chemistry**3 Credits**

A continuation of CHM 221 Organic Chemistry including a study of the structure, reactivity and stereochemistry of biomolecules and medicinally active compounds. Laboratory includes multi-step synthesis of pharmaceuticals and selected experiments with biomolecules.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CHM 221 Organic Chemistry

CHM 224 Instrumental Analysis**4 Credits**

Theory and laboratory instruction in electrochemical, optical, nuclear methods of analytical chemistry, including potentiometry, polarography, coulometry, conductimetry, liquid scintillation counting, gamma spectrometry. Ultraviolet-visible, infrared, atomic absorption spectrophotometry, GC-mass spectrometry, thermal analysis, carbon-hydrogen-nitrogen analysis, gas chromatography, ion chromatography, high performance liquid chromatography. For Medical Laboratory Technology students.

2 Class Hours, 6 Laboratory Hours

Prerequisite: CHM 132 Chemistry

CHM 245 Organic Chemistry**3 Credits**

A fundamental treatment of organic chemistry. Organic nomenclature, chemical properties of selected functional groups, mechanisms, stereochemistry and synthetic methods. For Liberal Arts science majors and Engineering Science students with departmental approval.

3 Class Hours

Prerequisite: CHM 146 Chemistry

Corequisite: CHM 245L Organic Chemistry Laboratory

CHM 245L Organic Chemistry Laboratory**2 Credits**

Basic techniques of separation and purification such as recrystallization, distillation, extraction, chromatography, modern instrumental techniques. Introduction to modern organic synthesis.

4 Laboratory Hours

Corequisite: CHM 245 Organic Chemistry

CHM 246 Organic Chemistry**3 Credits**

A continuation of CHM 245 Organic Chemistry including spectroscopy and introduction to molecules of biological importance.

3 Class Hours

Prerequisite: CHM 245 Organic Chemistry

Corequisite: CHM 246L Organic Chemistry Laboratory

CHM 246L Organic Chemistry Laboratory**2 Credits**

A continuation of CHM 245L Organic Chemistry Laboratory including an introduction to complex multi-step synthesis and qualitative organic analysis by classical and modern instrumental techniques.

4 Laboratory Hours

Prerequisite: CHM 245 Organic Chemistry and CHM 245L Organic Chemistry Laboratory

Corequisite: CHM 246 Organic Chemistry

CHM 261 Organic Chemistry**3 Credits**

A systematic study of the families of organic chemistry, including concepts of bonding, equilibria, reaction kinetics, energy profiles, isomerism and synthesis. Families viewed with emphasis on nomenclature, structural features, preparations, reaction products and uses.

3 Class Hours

Prerequisite: CHM 162 Chemistry

Corequisite: CHM 261L Organic Chemistry Laboratory

CHM 261L Organic Chemistry Laboratory**2 Credits**

Experiments include separation techniques, identification using instrumentation (infrared spectroscopy, gas chromatography) and syntheses.

6 Laboratory Hours

Corequisite: CHM 261 Organic Chemistry

CHM 262 Organic Chemistry**3 Credits**

Continuation of CHM 261 Organic Chemistry. Mass spectroscopy and nuclear magnetic resonance. Special topics including heterocyclic compounds, polymers, biomolecules.

3 Class Hours

Prerequisite: CHM 261 Organic Chemistry

Corequisite: CHM 262L Organic Chemistry Laboratory

CHM 262L Organic Chemistry Laboratory**2 Credits**

Emphasis on qualitative organic chemistry. Identification of unknowns.

6 Laboratory Hours

Prerequisite: CHM 261L Organic Chemistry Laboratory

Corequisite: CHM 262 Organic Chemistry

**CHM 265 Instrumental Methods of
Chemical Analysis****3 Credits**

Principles and techniques of modern quantitative analysis including treatment of analytical data, sampling, solution adjustment, chelatometry, redoximetry, aqueous and non-aqueous acid-base titrations, electrophoresis and isoelectric focusing, ion-exchange, ion chromatography, conductimetry, coulometry, electrogravimetry, polarography, amperometry, potentiometry, radioisotope methodology. For Chemical Engineering Technology and Liberal Arts "chemical model" students.

3 Class Hours

Prerequisite: 1 full year of college general chemistry and MAT 142 Applied Calculus I and PHY 142 Physics

Corequisite: CHM 265L Instrumental Methods of Chemical Analysis Laboratory

**CHM 265L Instrumental Methods of
Chemical Analysis Laboratory****2 Credits**

Application of chelometric, redox, precipitometric, aqueous and non-aqueous acid-base methods for chemical analysis of organic and inorganic compounds. Operation of polarographs, conductimeters, potentiometers, coulometers, and electroanalyzers for applications in electrochemical methods of analysis. Operation of a microprocessor controlled liquid scintillation counter, gamma spectrometer, and Geiger-Müller counter for applications in radioisotope methodology. Statistical evaluation of data obtained by the various analytical methods. For Chemical Engineering Technology and Liberal Arts "chemical model" students.

6 Laboratory Hours

Prerequisite: 1 full year of college general chemistry and MAT 142 Applied Calculus I and PHY 142 Physics

Corequisite: CHM 265 Instrumental Methods of Chemical Analysis

CHM 266 Instrumental Methods of Chemical Analysis

3 Credits

Principles and techniques of modern instrumental methods of chemical analysis including ultraviolet, visible, infrared, nuclear magnetic resonance, atomic absorption, emission and mass spectroscopy. Column, thin-layer, gel permeation, gas and liquid-liquid chromatography. Chemical microscopy and differential thermal analysis. For Chemical Engineering Technology students.

3 Class Hours

Prerequisite: CHM 265 Instrumental Methods of Chemical Analysis

Corequisite: CHM 266L Instrumental Methods of Chemical Analysis Laboratory

CHM 266L Instrumental Methods of Chemical Analysis Laboratory

2 Credits

Analysis by optical, separations, thermal techniques, trace methods applied to contemporary, industrial and environmental problems.

6 Laboratory Hours

Prerequisite: CHM 265 Instrumental Methods of Chemical Analysis

Corequisite: CHM 266 Instrumental Methods of Chemical Analysis

CHM 271 Chemical Processes

3 Credits

Material and energy balances along with applied chemical and physical principles as they apply to chemical engineering. Emphasis on problem solving.

3 Class Hours

Prerequisites: CHM 162 Chemistry, MAT 142 Applied Calculus I and PHY 142 Physics

Corequisite: CHM 271L Chemical Processes Laboratory

CHM 271L Chemical Processes Laboratory

2 Credits

Application of lecture topics to industrial situations. Emphasis on written and oral reports. Manipulation of data to convert it to a meaningful and useful state.

4 Laboratory Hours

Corequisite: CHM 271 Chemical Processes

CHM 272 Chemical Processes

3 Credits

Staged operations dealing with phase equilibrium. Graphical, analytical and computer methods are used to solve unit operations problems.

3 Class Hours

Prerequisite: CHM 271 Chemical Processes

Corequisite: CHM 272L Chemical Processes Laboratory

CHM 272L Chemical Processes Laboratory

2 Credits

Measurement of phase equilibria data and utilization of this data in staged operations. Emphasis on written and oral reports.

4 Laboratory Hours

Corequisite: CHM 272 Chemical Processes

CHM 290 Forensic Toxicology

3 Credits

Application of the principles of forensic toxicology and the related forensic sciences within the scope of medical-legal investigation. Drug and poison analysis, examination of physical evidence and death investigation. Optional laboratory sessions will provide basic knowledge of forensic analysis utilizing microscopy, gas chromatography, thin layer chromatography and spectroscopy.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CHM 120 Fundamental Chemistry or a semester of General Chemistry or permission of instructor

*CHM 291 Organic Chemistry I

3 Credits

*CHM 292 Organic Chemistry II

3 Credits

Nomenclature, properties of selected functional groups, mechanisms, stereochemistry, synthetic methods and spectroscopy. The laboratory stresses basic techniques of reactions, separations and isolation by classical methods as well as modern instrumental techniques.

2 Class Hours, 3 Laboratory Hours each

Prerequisites: CHM 146 Chemistry for CHM 291

CHM 291 Organic Chemistry I for CHM 292

*CHM 293 Analytical-Instrumental Chemistry I

3 Credits

Classical analytical chemistry—sampling, statistics, gravimetric and volumetric analysis. Introduction to electrochemistry.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CHM 146 Chemistry

*CHM 294 Analytical-Instrumental Chemistry II

3 Credits

Continuation of CHM 293 Analytical-Instrumental Chemistry I. Additional electrochemistry and electrochemical techniques. Emphasis on spectroscopic and chromatographic methods. Visible, infrared and nuclear magnetic resonance spectroscopy. Gas, liquid, column and thin layer chromatography.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CHM 293 Analytical-Instrumental Chemistry I

CHM 299 Independent Study

1-4 Credits

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

Prerequisite: Departmental approval

CHILD CARE

Child Care (CDC) courses may not be used to satisfy the Social Science requirement.

The Child Care program was developed with great flexibility in course selection and can be taken on a part-time basis by those individuals currently employed in the field. Those students who wish to pursue it on a full-time basis should contact the program Coordinator of Child Care. Very close planning and advisement will be necessary to pursue this program to its completion in two years.

MOST CHILD CARE COURSES (THOSE WITH CDC DESIGNATION) ARE OFFERED ONLY IN THE EVENING. FULL-TIME CHILD CARE STUDENTS MUST PLAN FOR BOTH DAY AND EVENING CLASSES.

*CDC 100 Introduction to Education of Young Children

3 Credits

An over-all view of nursery education and where it is going. Discussion of various philosophies and methods, programming, scheduling (what should go into scheduling a day for a pre-schooler and when). Focus on social, emotional and physical needs of young children and the importance of the "self concept" for both the child and the adult working with young children. Introduction to the college's Child Care program covering requirements, courses and career information. A required number of observations in pre-schools, nurseries and day care centers in the area, as well as a special laboratory project. Required of Child Care majors.

2 Class Hours, 2 Laboratory Hours

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

***CDC 115 Music for Young Children 3 Credits**

How to develop the whole child through the use of music. This course will be of a practical application for the teacher. Various techniques and methods will be demonstrated through the use of songs, records, eurhythmics, rhythm instruments and creative activities. Class participation will be a vital part of this course. Students will be expected to apply these various methods and activities with young children.
3 Class Hours

***CDC 120 Curriculum Development 3 Credits**

A pre-school curriculum for students planning to work in day-care centers and nursery schools. Emphasis on how art, language, math, creative play, science and outdoor play programs are used for the physical, social, emotional and mental development of the young child. Sharing and implementing ideas through special projects and construction and implementation of material related to specified areas. Students will be required to perform certain activities in a nursery school setting or with groups of children. Required of Child Care majors.
2 Class Hours, 2 Laboratory Hours
Prerequisite: CDC 100 Introduction to Education of Young Children

***CDC 140 Art for Young Children 3 Credits**

In-depth coverage of art education as it contributes to the pre-school child's emotional, physical and psychological growth. Needs of pre-schoolers in this area and ways to foster creativity and skill acquisition. Materials and methods appropriate for this age. A laboratory experience working with pre-schoolers in art will be required.
2 Class Hours, 2 Laboratory Hours

***CDC 150 Motor Development 3 Credits**

Designed to give the student an understanding of normal motor development and how it relates to cognitive and perceptual development. Students will be exposed to programs and activities in motor development for young children.
3 Class Hours

***CDC 160 Nutrition for Young Children 3 Credits**

Basics of good nutrition with emphasis on children. Ideas on planning and preparing snacks and meals and teaching good nutrition habits to children. Ideas on fitting nutrition into the nursery education curriculum and tying it to other subjects. Projects for practical application and experience in a nursery school setting.
2 Class Hours, 2 Laboratory Hours

***CDC 170 Practicum I 3 Credits**

Designed to meet the needs of both the experienced and the inexperienced students. The inexperienced student is placed in a classroom setting conducive to the learning of desired teacher competencies, working with an experienced supervising teacher. Six hours per week for 12 weeks in this situation. Self-evaluation as well as being evaluated by others. The experienced student is given some credit for work experience. For him/her, the practicum emphasizes self-evaluation according to classroom competencies. Both experienced and inexperienced students in group seminars with a college representative and meeting for individual consultation. Required of Child Care majors.
Prerequisite: 30 hours of counseled coursework
Taught evenings, field work days

***CDC 180 Child Health and Safety 3 Credits**

Designed to help students become aware of techniques for promoting general health care and safety standards at children's centers. Red Cross First Aid and Safety course included.
3 Class Hours

***CDC 190 Infants, Toddlers and the Family 3 Credits**

The mother/father/baby triad and the challenges that parenting brings to the young family are examined. Single parents, parental attachment, adoption, positive self image, infant stimulation, teen pregnancy, community support for families, toddler discipline, delayed pregnancy. Gives prospective parents and teachers of young children insight into this critical period of life.
3 Class Hours

***CDC 210 Special Problems in Children 3 Credits**

How to understand and help the child with a special problem. Normal adjustment problems, learning disabilities, physical handicaps, retardation and the emotionally disturbed child. Techniques for the classroom teacher and places to get help. Actual student involvement with children who exhibit these problems.
2 Class Hours, 2 Laboratory Hours
Prerequisite: PSY 211 Child Development

***CDC 220 Issues and Innovations in Early Childhood Education 3 Credits**

An overview and insight into various philosophies and materials of education for young children, including Montessori, Piaget, open education (comparing English and American schools), affecting education, behavior modification. The course aims to develop the competency of the student through practical application.
3 Class Hours
Prerequisite: CDC 100 Introduction to Education of Young Children

***CDC 230 Working with Parents in Nursery Programs 3 Credits**

Designed to introduce the need for the parents' involvement in the education of the young child. Benefits for teachers, parents and children, when teachers and parents work closely together. Consideration of feelings of teachers and parents which help or hinder their working together. Various aspects of working with parents, such as home visiting, group parent meetings, newsletters and written communications, parent conferences and the use of volunteers in the classroom. Part of the course on a workshop basis, and students required to develop a special project to earn their third credit.
2 Class Hours, 2 Laboratory Hours
Prerequisite: CDC 100 Introduction to Education of Young Children

***CDC 240 Social Development of Young Children 3 Credits**

Explores the developmental, environmental and temperamental aspects of the socialization process. Topics include aggression, cooperation and sharing, moral development, peer interaction, sex-role development, communication in the classroom.
2 Class Hours, 2 Laboratory Hours

***CDC 250 Language in Early Childhood 3 Credits**

A developmental study of language growth in young children and its influence on learning (cognitive abilities, social and behavioral concepts). Contemporary language theories and programs including a diagnostic approach to teaching language (communications skills, reading readiness and literature appreciation) in the pre-school. The student will be expected to spend a number of hours in a special project requiring observation of individual children and language arts programs.
3 Class Hours
Prerequisite: CDC 100 Introduction to Education of Young Children

***CDC 290 Practicum II 6 Credits**

Designed to be flexible depending upon the needs and interests of the student. Project for experienced students based on the development of these needs and interests. Project must be approved. The experienced student to share ideas from his/her areas of strength in seminar situations. For the inexperienced student, a classroom situation to conduct a self-evaluation of own competencies as a teacher, as well as being evaluated by others. Work with an experienced supervising teacher. The inexperienced student to spend nine hours per week in a classroom situation for 12 weeks. Required of Child Care majors.
Prerequisite: CDC 170 Practicum I
Taught evenings, field work days

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

CDC 299 Independent Study in Child Care*1-2-3 Credits**

An individual student project in child care beyond the scope or requirements of the courses offered by the department. Under the direction of a faculty member and approved by the program coordinator and department chairman. No more than three credits may be acquired toward the Child Care degree in independent study projects

1-2-3 Class Hours

Prerequisite: 6 Semester hours in Child Care courses

CIVIL ENGINEERING TECHNOLOGY**CIV 110 Introduction to Civil Engineering Technology** **1/2 Credit**

Introduction to the College and its policies, placement, transfer and study skills. Reasonable skill in the hand-held calculator to be developed. Outside speakers representing the various sectors of employment

1 Class Hour**CIV 111 Surveying I****4 Credits**

Fundamentals of plane surveying. Angle and distance measurement, leveling, stadia, note keeping, operation and care of instruments, traversing and topographic surveys. Extensive laboratory application of theory.

2 Class Hours, 6 Laboratory Hours

Corequisite: MAT 141 Algebra and Trigonometry

CIV 112 Surveying II**2 Credits**

A continuation of CIV 111 Surveying I. Error probability, topographic surveying and mapping, boundary surveys and deed searching, field astronomy, compass, planetable, control surveys, state plane coordinates, use of EDM instruments.

1 Class Hour, 3 Laboratory Hours

Prerequisite: CIV 111 Surveying I

CIV 115 Engineering Drawing**2 Credits**

Fundamentals of Engineering Drawing including care and use of instruments, line-work, lettering, geometric constructions, orthographic projection, sections, auxiliary views, pictorial drawings, and dimensioning

Fundamentals of Descriptive Geometry including visibility, true length, true shape, parallelism, perpendicularity, intersections, and developments.

1 Class Hour, 3 Laboratory Hours**CIV 117 Architectural Drafting****2 Credits**

Fundamentals of architectural drafting including floor plans, elevations, sections, details, schedules, plot plans, plumbing layouts, electrical layouts. Introduction to solar design. Emphasis on residential drawings.

1 Class Hour, 3 Laboratory Hours

Prerequisite: CIV 115 Engineering Drawing

CIV 124 Mechanics (Statics)**3 Credits**

Static force systems and equilibrium. Free body diagrams, trusses, graphic statics, spatial force systems, friction, centroids, moments of inertia.

3 Class Hours

Prerequisite: PHY 141 Physics

CIV 155 Surveying*3 Credits**

Plane surveying including distance measurement, note keeping, compass surveying, leveling, angle measurement, care and use of instruments, stadia, traversing, coordinates, area computation, mapping and records.

2 Class Hours, 3 Laboratory Hours

Prerequisite: MAT 139 Algebra and MAT 140 Trigonometry or equivalent

CIV 156 Route Surveying*4 Credits**

Horizontal and vertical curves, spirals, sight distances and earthwork. Introduction to computer applications. Laboratory includes problem sessions using the college's computer to solve coordinate geometric problems.

3 Class Hours, 2 Laboratory Hours

Prerequisite: CIV 155 Surveying

CIV 159 Architectural Drafting I*3 Credits**

Development of working drawing for use in residential type construction. Plot plans, floor plan elevations, details, mechanical and electrical layouts. Lectures to include construction materials, specifications and methods.

2 Class Hours, 3 Laboratory Hours***CIV 160 Architectural Drafting II****3 Credits**

A continuation of CIV 159 Architectural Drafting I. Development of working drawings for two-story and split-level residences.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 159 Architectural Drafting I

CIV 161 Architectural Drafting III*3 Credits**

Development of a set of working drawings for a small two-story commercial building including floor plans, elevations, sections, details, mechanical and electrical layouts, window and door schedules. Term project. (Not offered in 1985-86 academic year.)

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 160 Architectural Drafting II

CIV 213 Route Surveying and Photogrammetry**3 Credits**

Route Surveying: Simple and compound curves, vertical curves, spirals and earthwork. Selected topics in route design, and curve problems in highway design. Computer applications (COGO).

Photogrammetry: Geometry of aerial photography, stereo pairs, mosaics and plotting instruments.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 111 Surveying I

CIV 215 Strength of Materials**4 Credits**

Concepts of stress and strain. Behavior of materials due to axial force, torsion and moment. Stresses in beams and columns, shear and moment, deflections, determinate and indeterminate members, composite members, combined stresses.

4 Class Hours

Prerequisite: CIV 124 Mechanics (Statics)

CIV 217 Materials Testing**3 Credits**

Composition, properties and testing of construction materials. Major emphasis on plain concrete. Aggregates, cements, admixtures, design and proportioning of concrete mixes, curing and inspection. Bituminous materials and ferrous metals, load and deformation measurements, behavior of materials under load, strain gauges.

2 Class Hours, 3 Laboratory Hours

Corequisite: CIV 215 Strength of Materials

CIV 224 Reinforced Concrete Design

Fundamental theory and principles for design of reinforced concrete by the strength method. Design, analysis and detailing of rectangular beams, T-beams, beams reinforced for compression, columns and footings. Theory of prestressed concrete. An integrated design and detailing project.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 215 Strength of Materials

3 Credits

CIV 226 Structural Steel Design

Fundamental theory and principles necessary for design of simple steel structures. Design, investigation and detailing of beams, columns, tension and compression members and their connections. Composite beams. An integrated design and detailing project.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 215 Strength of Materials

3 Credits

***CIV 228 Estimating and Construction Planning**

A systematic approach to estimating building project costs combined with a study of construction management and the critical path method of scheduling.

2 Class Hours, 2 Laboratory Hours

3 Credits

CIV 231 Estimating and Construction Planning

A systematic approach to estimating building project costs. Term project—building cost estimate.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CIV 117 Architectural Drafting

3 Credits

CIV 236 Construction Management

Principles of construction management, specification writing, with emphasis on planning, building, scheduling and controlling a project.

3 Class Hours

3 Credits

CIV 237 Hydraulics

Hydraulics including properties of fluids, hydrostatics, fluid motion in or through orifices, nozzles, pipes, weirs, open channels, pipe branches and networks.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 124 Mechanics (Statics)

3 Credits

CIV 238 Architectural Design and Building Materials

Design and detailing of commercial building including site considerations, space requirements, layout planning, building materials, construction methods, construction details, working drawings. Emphasis on individual creativity. Semester project.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 117 Architectural Drafting

3 Credits

CIV 240 Soil Mechanics

Soil origin and nature, soil density, test borings, gradation, compaction, soil water, frost in soil, classification, permeability, shear strength, stress distribution, bearing capacity, piles. The laboratory covers ASTM and AASHTO specifications used in classifying and predicting behavior of soils.

2 Class Hours, 3 Laboratory Hours

Prerequisite: CIV 215 Strength of Materials

3 Credits

***CIV 268 Engineering Economics**

Use of compound interest in financing and in determining engineering cost comparisons. Introduction to depreciation methods. Illustrative cases and problems (personal and engineering) including New York State Professional Engineering Examination problems.

2 Class Hours

Prerequisite: MAT 139 Algebra or equivalent

2 Credits

CIV 299 Independent Study

The student undertakes an independent project in his/her speciality under the guidance of a faculty member. Only one independent course allowed per semester. Consideration may be given to a project involving a work assignment.

Prerequisite: Departmental approval

2-4 Credits

COMMUNICATIONS**COM 100 Media and Society**

The emergence and the contemporary effects of the social institution of mass communication upon our total lives—familial, economic, political, educational, religious and recreational. Consideration of the major print and electronic media and their particular roles and influences in our lives. News reporting as a profession and as a business. Impact of advertising upon the media and the media's impact on advertising. The interrelationships of mass communications and popular culture.

3 Class Hours

3 Credits

COM 110 Introduction to Photography

Basics of camera design and operation, plus the fundamentals of photographic visualization and composition: line, form, color, light, shadow. Darkroom procedures, film processing, basic printmaking, selective printing techniques. (Students must have their own 35mm single lens reflex camera and should expect to pay for their own photographic materials—about \$60.)

2 Class Hours, 2 Laboratory Hours

3 Credits

COM 120 Audio/Video Theory and Production

Theory and practice. Emphasis on actual experience with a variety of equipment: microphones, reel to reel and audio cassette tape recorders, black and white and color videotape players and recorders, portable videotape equipment.

3 Class Hours

3 Credits

COM 200 Introduction to Imagemaking

Critical examination of photography, film, television. Processes used in the production of media, as well as important media works.

3 Class Hours

3 Credits

COM 203 Beginning Filmmaking

Introduction to the craft of filmmaking. A "hands-on" approach to basic principles of photography, camera operation, lighting, editing used in the making of motion pictures. Introduction to sound recording.

2 Class Hours, 2 Laboratory Hours

3 Credits

COM 299 Independent Study

1-3 Credits

An individual student project concerned with advanced work in a specific area of communication. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course. (Requires application and approval.)

Prerequisite: 3 semester hours of college level work in communications

COMMUNITY INTERNSHIP

CTP 275 Community Internship

3 Credits

A non-paid, supervised internship related to a student's planned major or career concentration. Arranged contractually with a supervising faculty member. Involves, in addition to work at the placement site, periodic conferences with campus mentor, prescribed reading, and written assignments. Students must have an overall "B" or 3.0 average to qualify. Requires personal interviews with campus mentor and intern site supervisor(s).

CAD/CAM

(Computer Aided Design/Computer Aided Manufacturing)

CAD 200 Introduction to Computer Graphics

3 Credits

Introduction to the College's Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) System. Command structure. Implementation of commands to generate basic two-dimensional drawings. Introduction to three-dimensional construction. Text and execute files. Selected topics

2 Class Hours, 4 Laboratory Hours

Prerequisite: MAT 141 Algebra & Trigonometry or equivalent/and an acceptable background in engineering drawing.

CAD 201 Advanced Computer Aided Graphics

3 Credits

Mechanical Design in three-dimensions. View and model space commands. Work in isometric and auxiliary views. Descriptive geometry problem solving. Surfaces. Presentation of 3D parts and assemblies on a drawing format. Execute programs, file manipulation, MACRO language.

2 Class Hours, 4 Laboratory Hours

Prerequisite: CAD 200 Introduction to Computer Graphics

CAM 210 Computer Aided Numerical Control I

3 Credits

Numerical control programming and applications using computer graphics. Tool paths are developed, verified, edited and regenerated from part drawings: point to point, contouring, pocket and profile milling and lathe applications. Sheet metal flat pattern development and punching. Inputs are in "APT" Automatic Programmed Tool. Post processing. 2½ axis machining.

2 Class Hours, 4 Laboratory Hours

Prerequisite: CAD 200 Introduction to Computer Graphics. Background in Numerical Control. Permission of instructor.

CAD 220 Printed Circuits, Electrical Schematics and Wiring Diagrams

3 Credits

Fundamentals of computer aided design as used in the field of electricity and electronics. Laboratory work includes layout of schematic and ladder diagrams using previously constructed library parts. Design of printed circuit boards using automatic board routing. Use of extract definition files to obtain a bill of materials.

2 Class Hours, 4 Laboratory Hours

Prerequisite: Permission of instructor and CAD 200 Introduction to Computer Graphics, EET 150 Electronics or equivalent industrial experience.

CAD 230 CAD System Operation

3 Credits

System architecture—physical components. Hands-on experience. Building a system, day-to-day operating procedures, system failures and recovering procedures. DISC file management, magnetic tape back-ups. CADDs entry options, fonts, MENUS, KEYFILES, BATCH processor, task interrupts, command editor. System commands relating to file manipulation, information textfiles, system status, accounting log and textfile manipulation utilities. MACRO languages.

2 Class Hours, 4 Laboratory Hours

Prerequisite: CAD 201 Advanced Computer Aided Graphics and permission of instructor.

CAD 299 Independent Study

2-4 Credits

The student undertakes an independent project in his/her speciality under the guidance of a faculty member, which is beyond the scope of courses currently offered by the department. Only one independent study course allowed per semester. Consideration may be given to a project involving a work assignment.

Prerequisites: CAD 201 Advanced Computer Aided Graphics, and CAD 230 CAD System Operation and Permission of CAD Center Director and Department Chairperson.

COMPUTER STUDIES

The CST courses are designed to acquaint students with the computer and its capabilities and to provide opportunities for "hands-on" experience.

Because many college programs and industries depend on the computer to process data rapidly, both transfer-minded students and those preparing for immediate employment after graduation are introduced to the capabilities of the computer.

The College has a large computer system with more than 100 time-sharing terminals capable of supporting both the College's administrative and academic computing concurrently. Microcomputers and microprocessors provide additional laboratory experiences.

CST 100 BASIC

1 Credit

Arithmetic expressions, conditional transfers, conversational programming, loops, subscripted variables, functions and subroutines. Conforms to American National Standard for Minimal BASIC. May not be taken for credit if student takes CST 110 Introduction to Data Processing. (Half semester)

1 Class Hour, 2 Laboratory Hours

CST 101 Orientation

0 Credits

An opportunity for students to receive information about advisement and registration, transfer, interview techniques, resume writing, career opportunities, new trends in computing. Listening to speakers from Broome Community College, from other colleges, and from business and industry, viewing films and video tapes and watching demonstrations. May be used as a common testing hour for multi-section courses. All fulltime Computer Studies students are required to register for this course every semester.

CST 105 Understanding Computers**3 Credits**

How computers work. Step-by-step problem solving. Historical perspective and future trends. Social implications. The value of information to society. Applications. Laboratory work which includes simple programming and the use of programs for information processing, is done on the IBM Personal Computer. For students with no previous computing experience.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** ENG 110 Written Expression I**CST 110 Introduction to Data Processing****3 Credits**

Historical development and current influences exerted on society by the computer. Basic computer concepts including data entry, hardware and software components that comprise a computer system. Introduction to the computer programming language BASIC with hands-on experience. Emphasis on logical problem definition and documentation.

3 Class Hours**CST 113 Pascal with Structured Programming****5 Credits**

Introduction to problem solving by computer using the structured programming language Pascal. Top down design emphasized. Programming steps include program definition, outline of solution, structure charts, coding, debugging, testing and validation, documentation and program maintenance. Topics include loop structures, procedures, functions, scalar and ordinal types, arrays, records, text files. Documentation includes a logic manual and user's guide. Additional topics are number base conversion, binary arithmetic. Laboratory assignments reflect the basic structures of Pascal. For Computer Studies students.

4 Class Hours, 2 Laboratory Hours**Prerequisite:** MAT 139 Algebra or equivalent**CST 115 Introduction to Pascal****3 Credits**

Introduction to problem solving by computer using the structured programming language Pascal. Programming steps include problem definition, outline of solution, selection of algorithms, coding, debugging, testing and validating, documenting, program maintenance. Pascal syntax includes scalar, structured data types, assignment statements and arithmetic expressions, control statements, input and output statements, functions and procedures. Examples will introduce the basic algorithms used in computer science. (May not be taken for credit by Computer Studies students.)

2 Class Hours, 2 Laboratory Hours**Prerequisite:** MAT 003B Basic Math Review or equivalent and CST 110 Introduction to Data Processing**CST 116 RPG II****3 Credits**

Fundamentals of RPG (Report Program Generator) programming language. Beginning language for small business installations, especially those converting manual or unit record systems to computer. Explanation of specification sheets, internal logic, branching and table look-up operations.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** One CST (computer studies) course**CST 118 Computer Programming—COBOL****3 Credits**

Fundamentals of ANSI COBOL applied to solutions of commercially oriented problems. A number of problems assigned for execution on the computer.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** One CST (computer studies) course**CST 120 Computer Programming—FORTRAN****3 Credits**

Programming solutions to business problems utilizing the FORTRAN IV language. Emphasis on documentation procedures, techniques of programming and error analysis, simulation of business data processing in a laboratory environment. For business and data processing students.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** One CST (Computer Studies) course**CST 122 Scientific Computer Programming
—FORTRAN****3 Credits**

Introduction to problem solving techniques using FORTRAN including development of an algorithm, flow charting, program writing, debugging, storage and execution, input and output, loop techniques, array manipulation, file control and control of on-line equipment, structured programming, terminal and batch operations. Material to be covered taken from student's area of study. For engineering technology students.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** Working knowledge of algebra and trigonometry**CST 124 Computer Programming for Engineering and
Computer Science****3 Credits**

FORTRAN programming with applications in engineering, statistics and mathematics. Topics include syntax, looping, data representation, branching, functions and subroutines, multi-dimensional arrays. Simulation of engineering processes and graphical displays using CAD/CAM system.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** MAT 140 Trigonometry and EGR 150 Engineering Graphics or CST 113 Pascal with Structured Programming**CST 126 Assembly Programming—BAL****3 Credits**

System/360 and 370 overview, binary and hexadecimal arithmetic, relative addressing, machine and assembly code, instruction formats, type formats and boundaries, input/output techniques and data sets, decimal operations, logical instructions, branching and looping, subroutines, fixed point operations.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** CST 113 Pascal with Structured Programming**CST 140 Computers for Chemists****3 Credits**

Introduction to the application of both microcomputers and large time-shared computers to problems in chemistry. The principles of structured programming are examined, using BASIC and an introduction to PASCAL, including algorithm development, flow charting, debugging and execution. High level languages, operating systems and hardware. Introduction to the use of microcomputers to control laboratory equipment and to collect and process real-time data. For Chemical Engineering Technology students.

2 Class Hours, 2 Laboratory Hours**Corequisite:** MAT 142 Applied Calculus I or MAT 181 Calculus with Analytic Geometry I and CHM 146 Chemistry or CHM 162 Chemistry**CST 141 FORTRAN Programming with
Graphic Applications****3 Credits**

Introduction to problem solving techniques using FORTRAN. Development of steps to solve a problem (algorithm), use of text editor, terminal operation, file storage and retrieval, program writing, debugging, execution and program documentation. Components include input/output, formatting, loop techniques, array manipulation, use of complex numbers, subroutines, sequential access data files. Graphic applications include figure creation, scaling, plots of X-Y data, equations and polar plots. For Electrical Engineering Technology students.

2 Class Hours, 2 Laboratory Hours**Corequisite:** MAT 141 Algebra and Trigonometry**CST 150 APL****3 Credits**

An introduction to the powerful array handling computer language APL. Operations on scalars, vectors, matrices, arrays of any size or shape, primitive and user defined functions. Editing and workspace management. Business and scientific applications.

2 Class Hours, 2 Laboratory Hours**Prerequisite:** Two 3-credit programming language courses and MAT 139 Algebra or equivalent

CST 170 Digital Logic

3 Credits

Comprehensive coverage of basic logic gates. Boolean Algebra, Karnaugh Mapping and Quine-McCluskey technique with a view toward circuit simplification. Adders, subtractors, multiplexers, code converters, shift registers, asynchronous and synchronous counters presented in detail as basic computer building blocks. Interfacing between analog-digital and digital-analog covered as the method of communicating with the computer. Laboratory exercises utilize TTL and CMOS logic chips to reinforce material presented in lectures.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 113 Pascal with Structured Programming

CST 200 Systems Analysis I

3 Credits

A first course dealing with the principles of systems analysis and problem solving, concentrating on the investigation and analysis of systems and their resulting design. The importance of standards, procedures, documentation and design tools. A team case study used to develop a design for a new system

2 Class Hours, 2 Laboratory Hours

Prerequisite: Two programming languages (COBOL preferred) or instructor's permission

CST 201 Systems Analysis II

3 Credits

Continuation of the principles of systems analysis with a concentration on systems development, implementation and evaluation. A team case study approach used to develop a system based on a previously completed analysis and design. Programs written using COBOL and structured programming techniques.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 118 Computer Programming—COBOL, CST 218 Advanced COBOL, and CST 200 Systems Analysis I

CST 202 Advanced Pascal with Data Structures

3 Credits

Static and dynamic data structures. Choice of proper structure to organize data. Arrays, records, files, linked lists, trees, stacks, queues and directed graphs with applications. Programming will be done in Pascal.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 113 Pascal with Structured Programming

CST 205 Advanced FORTRAN

3 Credits

A study of advanced techniques using FORTRAN. Emphasis on structured programming techniques. Data structures include stacks, queues and trees. Several sorting algorithms are developed and compared. Use of the flecs dialect as well as FORTRAN 77. Advanced numerical techniques

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 122 Scientific Computer Programming—FORTRAN or CST 124 Computer Programming for Engineering and Computer Science

CST 211 Small Systems Applications

3 Credits

Use of a disk operating system, sequential and random access files in BASIC, word processing, spread sheet analysis, data management, business graphics. Laboratory work on the IBM Personal Computer

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 113 Pascal with Structured Programming

CST 218 Advanced COBOL

3 Credits

A second course in the use of COBOL language as a means of implementing computerized solutions to data processing problems. Batch and interactive processing, various file access techniques, use of advanced language statements and of various utilities available to the COBOL programmer

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 118 COBOL with C grade or better

CST 220 Introduction to Microprocessors

3 Credits

Introduction and programming the 8088 microprocessor with the aid of a macro assembler. Microprocessor definitions and terms, branching, flags, indexed and extended addressing, stack operations, subroutines and system interrupts. Extensive use of the 8088 in programming and interfacing.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 170 Digital Logic and one programming language

CST 222 Topics in Computer Systems

3 Credits

Topics in this course acquaint students with current programming techniques and equipment. They may include microprocessor programming and interfacing; scheduling, queueing, time-sharing, file manipulations; microcomputer programming and graphics; data communications systems.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 113 Pascal with Structured Programming or CST 124 Computer Programming for Engineering and Computer Science

CST 225 Introduction to Small Systems

3 Credits

Introduction to the concepts and implementation of small computer systems. Hardware and software techniques, keyboards, display terminals, printers, graphics, magnetic storage, disk drives, disk operating systems, telecommunication techniques, and networking. Extensive use of the IBM PC in the laboratory will reinforce classroom concepts.

2 Class Hours, 2 Laboratory Hours

Prerequisite: CST 220 Introduction to Microprocessors and CST 113 Pascal with Structured Programming

CST 297 Cooperative Work Experience

1-3 Credits

Cooperative education in computing may be available. On-the-job experience may be obtained by working with businesses, industries and offices whose operations require the use of computers. To be eligible a student must maintain a cumulative grade point average of 2.5, with a 3.0 average in CST courses and have no F grades.

CST 299 Independent Study

1-3 Credits

The student undertakes an independent project, under the guidance of a faculty member, which is beyond the scope of courses currently offered by the department. Only one independent study project allowed per semester.

CRIMINAL JUSTICE

Criminal Justice (CRJ) courses may not be used to satisfy the Social Science requirement.

The Criminal Justice program was developed with great flexibility in course selection and can be taken on a part-time basis by those individuals currently employed in the field. Those students who wish to pursue it on a full-time basis should contact the Program Coordinator of Criminal Justice. Very close planning and advisement will be necessary to pursue this program to its completion in two years.

CRJ 101 Introduction to Criminal Justice

3 Credits

Overview of the major components of the criminal justice system—law enforcement, prosecution, trial courts and corrections. A systems approach is utilized with an emphasis on the structure, functions and interdependence of these and other criminal justice system components. (Formerly CRJ 100)

3 Class Hours

CRJ 115 Juvenile Justice System

Overview of the juvenile justice system, including the history, process, status and philosophy of the juvenile court. Law enforcement handling of juveniles, various theories of delinquency causation, correctional programs and alternative methods of dealing with juvenile offenders. (Formerly CRJ 250)
3 Class Hours

3 Credits

THE FOLLOWING CRIMINAL JUSTICE COURSES ARE TAUGHT IN THE EVENING ONLY

***CRJ 105 Introduction to Corrections**

3 Credits

Overview of the corrections components of the criminal justice system, tracing the history of corrections in the United States. Relationships and interdependencies of corrections with the court and law enforcement components of the criminal justice system and a discussion of the theoretical basis for the four major types of correctional models. (Formerly CRJ 240)
3 Class Hours

***CRJ 125 Penal Law**

3 Credits

Essential elements of the various crimes under the New York State Penal Law. The concepts of culpability and criminal defenses recognized under the New York State Penal Law as they relate to murder, rape, robbery, burglary, arson, assault, drug offenses, disorderly conduct and harassment. (Formerly CRJ 210)
3 Class Hours

***CRJ 130 Introduction to Security**

3 Credits

Organization and management of the security function in industry, business, government and institutions. The protection of personnel, facilities and other assets, as well as administrative, legal and technical problems of loss prevention and control. (Formerly CRJ 260)
3 Class Hours

***CRJ 212 Criminal Procedure and Constitutional Law**

3 Credits

The right to counsel, search and seizure, confessions, lineups, electronic surveillance, probation and parole. (Formerly CRJ 120)
3 Class Hours
Prerequisite: CRJ 101 Introduction to Criminal Justice

***CRJ 215 Police Administration**

3 Credits

Fundamentals of organization, supervision and over-all management of police and civilian personnel. Designed to supply a background for the student in dealing with the complexities involved in the management aspect of various police agencies. (Formerly CRJ 110)
3 Class Hours
Prerequisite: CRJ 101 Introduction to Criminal Justice

***CRJ 220 Evidence For Law Enforcement**

3 Credits

A practical examination of the law of evidence, as it pertains to the function of persons engaged in law enforcement. Fundamental concepts and terminology, due process of obtaining evidence in criminal investigations, search and seizure, confessions, identification to the process of presenting evidence at hearings and trials of criminal cases (scientific evidence, direct and cross examination of witnesses).
3 Class Hours
Prerequisites: CRJ 101 Introduction to Criminal Justice and CRJ 125 Penal Law

***CRJ 225 Security Administration**

3 Credits

Administration of public and private security efforts; problems in protection program development and evaluation, functions of various levels of personnel, company/organizational relations, documents and personnel access control, detection systems, devices, and equipment, emergency and disaster planning, new directions in the field of security.
3 Class Hours
Prerequisite: CRJ 130 Introduction to Security or permission of the instructor/department chairperson

***CRJ 230 Criminal Investigation**

3 Credits

Basic principles of investigation as they relate to the collection, preservation, identification and examination of physical evidence. Techniques for locating and interviewing witnesses and for interrogating suspects. Common myths associated with detective work.
3 Class Hours
Prerequisites: CRJ 101 Introduction to Criminal Justice and CRJ 125 Penal Law

***CRJ 235 Understanding and Changing Criminal Behavior**

3 Credits

In-depth examination of the various theories utilized in explaining and dealing with criminal behavior. Theories emanating from the fields of psychology, sociology and biology provide the basis of this examination. A seminar approach. Participation of students will be expected to document and report their activities.
3 Class Hours
Prerequisites: CRJ 101 Introduction to Criminal Justice and CRJ 105 Introduction to Corrections.

***CRJ 255 Special Topics in Criminal Justice**

1-3 Credits

The specific area to be covered will be based upon identified needs and interests of criminal justice students. This course also provides a forum for professional individuals in the criminal justice field with a particular expertise to share their knowledge and skills with students.
1-3 Class Hours
Prerequisites: CRJ 101 Introduction to Criminal Justice and 2 other CRJ courses.

CRJ 299 Independent Study

1-3 Credits

An individual student project concerned with advanced level work beyond the scope or breadth of regular courses. A specific area or topic is investigated under the direction of a faculty member. Must be approved by department chairperson.
Prerequisite: CRJ 101 Introduction to Criminal Justice and 6 credits in CRJ courses

DENTAL HYGIENE

DEN 101 Dental Hygiene I

2 Credits

Contemporary practice of dental hygiene and factors affecting such practice. Fundamentals of instrumentation, exploring, probing, scaling, and polishing on student patients. Clinical experience in the basic techniques of preparation for the dental hygiene appointment, patient evaluation and data collection and patient treatment.
2 Class Hours
Corequisite: DEN 101L Dental Hygiene I Laboratory

DEN 101L Dental Hygiene I Laboratory

2 Credits

Practical application in an actual clinical setting of the principles described in the lecture mode of this course.
6 Laboratory Hours
Corequisite: DEN 101 Dental Hygiene I

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

DEN 102 Dental Hygiene II**4 Credits**

Continuation of DEN 101 Dental Hygiene I. Clinical experience in the basic techniques of dental hygiene care including treatment planning, patient appraisal and instrumentation. Theory in ethics, jurisprudence, professional organizations, emergency medical and dental procedures and care of patients with special medical problems and oral physiotherapy and oral health instruction.

4 Class Hours

Prerequisites: DEN 101 Dental Hygiene I, BIO 131 Human Biology I and DEN 103 Oral Anatomy and Physiology

Corequisite: DEN 102L Dental Hygiene II Clinic

DEN 102L Dental Hygiene II Clinic**2 Credits**

Clinical dental hygiene practice.

8 Laboratory Hours

Corequisite: DEN 102 Dental Hygiene II

DEN 103 Oral Anatomy and Physiology**4 Credits**

Normal structure and function of the oral cavity (microscopic and gross). Laboratory work provides experience with traditional approaches to the study of oral anatomy and physiology.

2 Class Hours, 4 Laboratory Hours

DEN 106 Clinical Dental Radiography**1 Credit**

Nature and generation of radiation, understanding of radiation hygiene and safety, basic concepts of the X-ray machine. Intraoral dental radiographic techniques, film processing and mounting, interpretation of radiographic factors and recognition of anatomical landmarks.

1 Class Hour

Prerequisites: DEN 101 Dental Hygiene I and DEN 103 Oral Anatomy and Physiology and BIO 131 Human Biology I

Corequisite: DEN 106L Clinical Dental Radiography Laboratory

DEN 106L Clinical Dental Radiography Laboratory**1 Credit**

Practical application on manikins and patients of principles described in lecture mode.

2 Laboratory Hours

Corequisite: DEN 106 Clinical Dental Radiography

DEN 201 Dental Hygiene III**2 Credits**

Continuation of DEN 102 Dental Hygiene II. Integration of theory with clinical experience in various oral hygiene preventive procedures. Emphasis on planning and execution of the total treatment plan concept.

2 Class Hours

Prerequisites: DEN 102 Dental Hygiene II, DEN 106 Clinical Dental Radiography and BIO 160 Microbiology

Corequisite: DEN 201L Dental Hygiene III Clinic

DEN 201L Dental Hygiene III Clinic**3 Credits**

Clinical dental hygiene practice.

12 Laboratory Hours

Corequisite: DEN 201 Dental Hygiene III

DEN 202 Dental Hygiene IV**2 Credits**

Continuation of DEN 201 Dental Hygiene III. Clinical experience in all phases of dental hygiene care including selected expanded functions.

2 Class Hours

Prerequisites: DEN 201 Dental Hygiene III, DEN 204 General and Oral Pathology and DEN 205 Periodontology

Corequisite: DEN 202L Dental Hygiene IV Clinic

DEN 202L Dental Hygiene IV Clinic**3 Credits**

Clinical dental hygiene practice.

12 Laboratory Hours

Corequisite: DEN 202 Dental Hygiene IV

DEN 204 General and Oral Pathology**3 Credits**

Broad picture of the disease process through the study of common general diseases, their cause, results and treatment. Emphasis on the principles of inflammation, healing and repair, oral disease, their causes, recognition and treatment.

3 Class Hours

Prerequisites: DEN 102 Dental Hygiene II, BIO 132 Human Biology II and BIO 160 Microbiology

DEN 205 Periodontology**2 Credits**

Overall study of the pathology of the supporting structures surrounding the teeth. Special emphasis on recognition and treatment of the periodontal patient within the scope of the dental hygienist.

2 Class Hours

Prerequisites: DEN 102 Dental Hygiene II, DEN 106 Clinical Dental Radiography, BIO 132 Human Biology II and BIO 160 Microbiology

DEN 206 Dental Pharmacology**2 Credits**

Pharmacology as it affects the clinical practice of dental hygiene and dentistry. Drugs commonly used in dentistry and correct methods for their use. Emphasis on pharmacological aspects of anesthesia.

2 Class Hours

Prerequisites: BIO 132 Human Biology II and BIO 160 Microbiology

DEN 209 Nutrition**3 Credits**

Basic nutrition principles, including functions, sources, conditions resulting from excessive or inadequate intake of each nutrient. Study of diet planning, dietary guideline, weight control, nutrition care throughout life cycle. Special emphasis on the relation of nutrition to the oral cavity and its practice in the dental office. Interviewing, oral health diet score, nutritional counseling.

3 Class Hours

Prerequisite: DEN 102 Dental Hygiene II

DEN 210 Dental Materials**3 Credits**

Composition, chemical and physical properties and use of materials used in the dental laboratory and operatory. Laboratory sessions will provide experience in performing common dental laboratory procedures and background for clinical application of expanded functions.

2 Class Hours, 2 Laboratory Hours

Prerequisite: DEN 201 Dental Hygiene III

DEN 213 Public Health**3 Credits**

Principles of public health and fundamentals of assessing, planning, implementing and evaluating of public health care with emphasis on community dental health. Laboratory experience in assessing, planning, implementing and evaluating care for a particular target population.

2 Class Hours, 2 Laboratory Hours

Prerequisite: DEN 102 Dental Hygiene II

DEN 214 Dental Specialties**2 Credits**

Overview of dental specialties with emphasis on those specialties not covered in other courses in the Dental Hygiene curriculum—endodontics, orthodontics, pedodontics.

2 Class Hours

Prerequisite: DEN 201 Dental Hygiene III

DEN 298 Independent Study - Fall**1-3 Credits**

Advanced studies in Dental Hygiene conducted under the guidance of a Dental Hygiene instructor.

Prerequisite: DEN 101, 102 Dental Hygiene I and II and permission of Department Chairperson

DEN 299 Independent Study - Spring**1-3 Credits**

Advanced studies in Dental Hygiene conducted under the guidance of a Dental Hygiene instructor.

Prerequisite: DEN 101, 102 Dental Hygiene I and II and permission of Department Chairperson

DIETARY MANAGER***DIA 100 Introduction to Principles of Basic Nutrition****3 Credits**

Designed to develop an awareness and appreciation of the importance and scope of the science of nutrition. Factors contributing to individual differences in food and eating patterns, nutritional needs at various stages of life, functions and sources of major nutrients, sociological impacts of nutrition. May be used as Child Care elective in AAS program.

3 Class Hours

These courses are designed for individuals already employed in the food service field, as there is a requirement for supervised work experience by a Registered Dietician. All persons entering the program are responsible for finding a preceptor, and registrations are on a pre-application basis.

DIA 101 Nutrition*3 Credits**

The social, cultural, psychological and physiological functions of food. Nutrition care throughout the life cycle. Special consideration given to modifications of the basic diet to meet the needs of the resident in health care facilities. Techniques of interviewing, medical ethics and documentation procedures of medical records.

2 Class Hours, 4 Directed Practice

DIA 102 Institutional Food Preparation**3 Credits**

Principles of food preparation, standardization of recipes, menu structure and planning. Serving, merchandising and promotion of food items. Emphasis on sanitation and safety practices in food service departments.

2 Class Hours, 4 Directed Practice

Prerequisite or corequisite: DIA 101 Nutrition

DIA 201 Food Management Systems**3 Credits**

Introduction to the health field and its inter-relationships. Control through specification, purchasing, inventory, cost analysis. Equipment maintenance and management safety practices.

2 Class Hours, 4 Directed Practice

DIA 202 Personnel Management**3 Credits**

Leadership and supervisory techniques. Concepts of management including the principles of organizing, evaluating, and the decision-making process. Implications of authority and responsibilities. Understanding and communicating with workers and co-workers. Employee recruitment, training and evaluation. Morale and labor relations.

2 Class Hours, 4 Directed Practice

ECONOMICS**ECO 101 Consumer Economics****3 Credits**

Institutions and forces directly affecting the consumer, consumer income and expenditure patterns, personal finance, credit and tax problems, personal investment alternatives. Impact of the consumer movement on the individual and society.

3 Class Hours

ECO 104 Labor Economics and American Industry**3 Credits**

Interaction among business, labor and government. Analysis of the causes of unemployment and income inequality. Connection among productivity, wages, prices and employment and application of anti-trust and labor laws to firms and unions.

3 Class Hours

ECO 110 Introduction to Micro-Economics**3 Credits**

Supply, demand and the market system as they relate to contemporary economic problems including poverty, energy, the environment and urban decay. The allocation of resources under conditions of competition and various degrees of monopoly. Rationale behind anti-trust laws and other governmental attempts to control monopoly power and promote economic well-being. Comparative economic systems.

3 Class Hours

ECO 111 Introduction to Macro-Economics**3 Credits**

Causes of unemployment and inflation and the government's efforts to control them. Problems of economic growth as they relate to our economy and the other countries, developed and underdeveloped. International trade and finance problems.

3 Class Hours

ECO 140 Economics of Urban Problems**3 Credits**

Application of economic analysis to urban problems, an understanding of the economic forces that affect housing, transportation, poverty, crime, land use, the financing of urban services and the urban future.

3 Class Hours

ECO 253 Money and Banking**3 Credits**

An examination of money, credit and financial institutions, emphasizing how the monetary system influences economic activity. Nature and functions of money, the commercial banking system and other financial institutions, the roles of the Federal Reserve System and the Treasury, monetary policy and international money problems.

3 Class Hours

Prerequisite: ECO 111 Introduction to Macro-Economics

ECO 299 Independent Study**1-3 Credits**

An individual student project in economics which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: 3 semester hours in economics

ELECTRICAL ENGINEERING TECHNOLOGY

EET 100 Introduction to Electrical Engineering Technology

1/2 Credit

Introduction to Electrical Engineering Technology, career opportunities, transfer opportunities, study skills and college services. An association with industry is established through field trips and panel discussions involving industry representatives. Reasonable proficiency in the use of hand held calculator is developed.

1 Class Hour

† EET 111 Electrical Construction Laboratory I

2 Credits

Basic knowledge about today's electrical equipment. Experience in the installation, fabrication and maintenance of electrical equipment by means of "hands-on" approach. Shop safety and the National Electrical Code. Basic residential and commercial wiring procedures, basic measuring techniques, fundamentals of basic machine operations.

1 Class Hour, 3 Laboratory Hours

EET 112 Electrical Construction Laboratory II

1 Credit

Advanced wiring methods, fractional horsepower motor and appliance troubleshooting, introduction to residential and commercial lighting and power layout-design.

3 Laboratory Hours

Prerequisite: EET 111 Electrical Construction Laboratory I

† EET 121 Electrical Circuits & Laboratory

4, 1 Credits

Fundamentals of electrical circuits and application of circuit laws, theorems and measuring techniques to both d-c and a-c single and polyphase circuits.

4 Class Hours, 3 Laboratory Hours

***† EET 125 Circuits I**

3 Credits

D-c circuits, including loop and nodal analysis, superposition, Thevenin's and Norton's theorems, RL and RC time constants.

2 Class Hours, 2 Laboratory Hours

Prerequisite: MAT 139 Algebra or equivalent

Student may take MAT 139 concurrently with this course

***† EET 126 Circuits II**

3 Credits

A continuation of the study of circuits concepts related to single and three-phase alternating current. Resonance, network analysis, power.

2 Class Hours, 2 Laboratory Hours

Prerequisites: MAT 140 Trigonometry or equivalent and EET 125 Circuits I

Student may take MAT 140 concurrently with this course

EET 130 Engineering Drawing

1 Credit

Principles of projection. Development of drafting skills, lettering and proper line construction. Dimensioning and tolerancing, with an emphasis on shop processes. Use of auxiliary views and sectioning. Preparation of assembly drawings, materials lists, schematic and wiring diagrams.

3 Laboratory Hours

† EET 150 Electronic Devices & Laboratory

4, 1 Credits

A first course in Electronics introducing the devices fundamental to the field. Introduction of semiconductor diodes, bipolar and field effect transistors, thyristors, operational amplifiers, microprocessors. Design and analyze representative circuits based on these building blocks. Competency in FORTRAN IV computer language is required and is applied to generate software for design and analysis of related circuits.

4 Class Hours, 3 Laboratory Hours

Prerequisites: MAT 141 Algebra and Trigonometry and CST 141 FORTRAN Programming with Graphic Applications and EET 121 Electrical Circuits

EET 162 Computer Aided Network Analysis

3 Credits

Computer analysis of complex electrical and electronic networks by application of network theorems and application of software as needed. Use of a second computer language to display the response of two port networks. Use of the computer to apply matrix methods to the analysis of complex circuits and the solution of network problems.

3 Class Hours

Prerequisites: CST 141 FORTRAN Programming with Graphic Applications and EET 121 Electrical Circuits and MAT 141 Algebra and Trigonometry

† EET 181 Installation and Maintenance of Electrical Motors

2 Credits

Theory, operation and application of electrical machines and control systems as related to industry. Installation, maintenance and trouble-shooting of electrical motors and control systems emphasized.

1 Class Hour, 2 Laboratory Hours

† EET 183 Applied Electricity

3 Credits

Practical applications of electrical concepts as applied to basic circuits, motors and transducers. Laboratory work includes demonstration of basic electrical concepts using measuring instruments such as digital multimeters, oscilloscopes, function generators, counters, wattmeters, bridges and transducers as sensors.

2 Class Hours, 3 Laboratory Hours

Prerequisites: PHY 142 Physics and MAT 141 Algebra and Trigonometry

† EET 186 Electronics

3 Credits

Practical applications of electronic concepts as applied to solid state devices, amplifiers, power supplies, oscillators, timers, multivibrators and basic logic devices and transducers. Laboratory work includes practical applications of concepts by students, operation of common electronic instruments such as oscilloscope, curve tracer, function generator and counter.

2 Class Hours, 3 Laboratory Hours

Prerequisite: EET 183 Applied Electricity

EET 230 Electronic Design and Fabrication

1 Credit

Selection, package design and construction of an electronic project and preparation of related drawings. Use of various manufacturing processes to fabricate the project. Use of industrial standard drafting practices to properly describe the operations. Chassis layout, printed circuit board design, exposure, and etching, wiring, soldering, and enclosure fabrication are required.

3 Laboratory Hours

Prerequisites: EET 112 Electrical Construction Laboratory II and EET 130 Engineering Drawing and EET 251 Electronic Circuitry & Laboratory

*** TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

† These courses carry separate grades for lecture and laboratory

‡ Combined lecture-laboratory courses; final grade depends on successful completion of both parts.

†EET 235 Electrical and Electronics*Drawing****2 Credits**

Graphic representation of circuitry related to the electrical and electronics fields. Use of industrial standards and symbolism to draw electronic, schematic and wiring diagrams, printed circuit layout and electronics assemblies. Construction of one-line power distribution diagrams, industrial motor control diagrams and commercial lighting layout.

1 Class Hour, 2 Laboratory Hours

Prerequisites: MET 113 Engineering Drawing I and EET 255 Electronics I

† EET 241 Energy Conversions and Control Systems I & Laboratory**3, 1 Credits**

Theory, operation and application of d-c machines, and their magnetic and solid state control. Theory and application of single and polyphase power transformers and rectifiers. Application of industrial control systems.

3 Class Hours, 3 Laboratory Hours

Prerequisite: EET 150 Electronic Devices

† EET 242 Energy Conversions and Control Systems II & Laboratory**4, 1 Credits**

Generation and use of three-phase power. Theory, operation and application of a-c motors and controls. Principles of open and closed loop systems. Theory, operation, application of industrial equipment used in control systems.

4 Class Hours, 3 Laboratory Hours

Prerequisite: EET 241 Energy Conversions and Control Systems I

†EET 245 Energy Conversions and Control Systems*4 Credits**

D-c and a-c electrical machines theory, applications, and control. Single phase and polyphase power transformers and rectifiers. Application of industrial control systems.

3 Class Hours, 2 Laboratory Hours

Prerequisite: EET 126 Circuits II

† EET 251 Electronic Circuitry & Laboratory**3, 1 Credits**

A second course in Electronics that incorporates the devices introduced in EET 150 Electronic Devices into representative circuits of moderate complexity. These include multi-stage tuned amplifiers, instrument and transducer amplifiers, op-amp active filters and other related data acquisition circuits. Practical considerations including heat sinking, noise, electromagnetic interference, and appropriate device selection. The BASIC and FORTRAN IV computer languages are required for applications software used to design and analyze multi-stage and active filter circuits.

3 Class Hours, 3 Laboratory Hours

Prerequisite: EET 150 Electronic Devices

† EET 252 Electronic Systems & Laboratory**3, 1 Credits**

A third course in Electronics that uses the circuit concepts used in EET 251 Electronic Circuitry to develop larger systems currently used in the electronics field. These include transducers, interface and data acquisition systems, switchmode power supplies, telecommunications, phase locked loops, television and communication systems. Emphasis on interface between the analog and digital world. Computer used throughout the semester to aid in design and debug of systems.

3 Class Hours, 3 Laboratory Hours

Prerequisite: EET 251 Electronic Circuitry

†EET 255 Electronics I*4 Credits**

A first course in Electronics introducing the devices fundamental to the field. Introduction of semiconductor diodes, bipolar and field effect transistors, thyristors, op-amps. Design and analyze representation circuits based on these building blocks.

3 Class Hours, 2 Laboratory Hours

Prerequisite: EET 126 Circuits II

†EET 256 Electronics II*4 Credits**

A second course in Electronics that incorporates the devices introduced in EET 255 Electronics I into representative circuits of moderate complexity. These include multi-stage tuned amplifiers, op-amp active filters, and other related data acquisition circuits. Practical considerations including heat sinking, noise, electromagnetic interference, and appropriate device selection.

3 Class Hours, 2 Laboratory Hours

Prerequisites: EET 255 Electronics I and CST 122 Scientific Computer Programming — FORTRAN

†EET 257 Electronics III*4 Credits**

A third course in Electronics that uses the circuit concepts used in EET 256 Electronics II to develop larger systems currently used in the electronics field. These include switchmode power supplies, phase locked loops, communication systems, and interfacing systems. Computer used to aid in design and debug of systems.

3 Class Hours, 2 Laboratory Hours

Prerequisite: EET 256 Electronics II

† EET 267 Digital Electronics and Microprocessors I & Laboratory**3, 1 Credits**

Study of number systems, logic gates (TTL/CMOS), counters, shift registers, codes, types of memories, Boolean algebra, reduction theorems, and black box design applied to data transmission, computer arithmetic, and microprocessor operations. Microprocessor (8080, 8085, and Z80) assembly language programming using assemblers, disassemblers, monitors, loaders, logic analyzers, and other tools related to industrial applications of microcomputers. Internal operation of a computer from a block diagram approach. Applications include software scrolling, IC testing, traffic controllers, display systems, and math operations. Appropriate laboratory exercises provide hands-on experience in three areas—digital circuitry, microprocessor assembly language, and microprocessor interface hardware.

3 Class Hours, 2 Laboratory Hours

Prerequisites: EET 150 Electronic Devices or EET 255 Electronics I and CST 122 Scientific Computer Programming—FORTRAN or CST 141 FORTRAN Programming with Graphic Applications

†EET 268 Digital Electronics and Microprocessors II & Laboratory*4 Credits**

Use of modern microprocessors (Z80, 8086, and 68000) in real time control applications such as testing complex circuitry using microcomputers, display systems, speech synthesis, EPROM and EEPROM programming, ultrasonic techniques, data manipulation, multiplexing, video games, satellite receivers, encryption techniques, disk controllers, array processors, and other modern topics in the microcomputer world. Use of development systems (UNIX based), logic analyzers, and high level languages. Students undertake a project related to the field and study the differences between eight other popular microprocessors. Assembly language skills learned in EET 267 Digital Electronics and Microprocessors I are tuned and further software development takes place.

3 Class Hours, 2 Laboratory Hours

Prerequisite: EET 267 Digital Electronics and Microprocessors I

*** TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

† These courses carry separate grades for lecture and laboratory

‡ Combined lecture-laboratory courses; final grade depends on successful completion of both parts.

EET 299 Independent Study

2-4 Credits

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a job-related assignment. Any independent study project is based on instructor availability.

Prerequisite: Department Approval

ENGINEERING

EGR 100, 200 Orientation

0 Credits

Attendance at these sessions assures the Engineering Science student a smooth transition into and out of Broome Community College. Guest speakers discuss common problems engineering students encounter. Representatives from transfer schools introduce their respective institutions to students. Common exams will be scheduled during these sessions.

2 Class Hours

EGR 150 Engineering Graphics

2 Credits

Fundamental course in drawing techniques and interactive computer graphics, graphing, orthographic projecting, dimensioning, true length, true size, relationships between lines and planes, interactive three-dimensional graphics using BASIC programming. For Computer Science and Engineering Science students.

1 Class Hour, 2 Laboratory Hours

Corequisite: EGR 100 Orientation

EGR 281 Mechanics (Statics)

3 Credits

Fundamental concepts of the statics of rigid bodies developed by using a vector analysis approach. Force systems, centroids and centers of gravity, analysis of structures, shear and bending moments, friction and moments of inertia.

3 Class Hours

Prerequisite: 1 year of Calculus and PHY 181 Physics I

Corequisite: EGR 200 Orientation

EGR 282 Mechanics (Dynamics)

3 Credits

Concepts using vector analysis approach to kinematics and kinetics of particles, systems of particles, kinematics and kinetics of rigid bodies. Forces, mass, acceleration impulse, momentum, work and energy techniques.

3 Class Hours

Prerequisite: EGR 281 Mechanics (Statics)

Corequisite: EGR 200 Orientation

EGR 284 Materials Science

3 Credits

Atomic model, bonding, lattice concept, crystal types, imperfections, stress and temperature effects, phase diagrams, alloys, ceramics, glass, concrete, polymers, corrosion.

3 Class Hours

Prerequisite: PHY 182 Engineering Physics II and CHM 146 Chemistry

Corequisite: EGR 200 Orientation

EGR 285 Electrical and Electronic Circuits

3 Credits

Kirchhoff's Laws, energy and power. Resistance, inductance and capacitance parameters. Series and parallel circuits, superposition theorem, network analysis by mesh currents, nodal techniques. Thevenin's Theorem, network reduction. Techniques for solving step response, pulse response, forced response, natural response and complete response. A-c circuits, phasors, impedance, resonance. Operational amplifiers and feedback.

3 Class Hours

Prerequisite: 1 year of calculus and 1 year of physics including electricity and magnetism or permission of instructor

Corequisite: EGR 200 Orientation

EGR 286 Engineering Analysis

1 Credit

Introduction to microprocessors with digital logic.

1 Class Hour

Prerequisite: 1 year of calculus and high-level programming language

Corequisite: EGR 200 Orientation and EGR 288 Engineering Science Laboratory II

EGR 287 Engineering Science Laboratory I

1 Credit

Experimentation in electrical and electronic circuits, heat, light, atomic and nuclear physics.

3 Laboratory Hours

Prerequisite: 1 year of calculus and 1 year of laboratory physics

Corequisite: EGR 285 Electrical and Electronic Circuits and PHY 281 Engineering Physics III

EGR 288 Engineering Science Laboratory II

1 Credit

Experimentation in digital logic and microprocessors, software and hardware interfacing.

3 Laboratory Hours

Prerequisite: EGR 287 Engineering Science Laboratory I

Corequisite: EGR 286 Engineering Analysis

EGR 299 Independent Project

2-4 Credits

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

Prerequisite: Departmental Approval

ENGLISH

After completing a writing sample, students with serious deficiencies will be required to enroll in ENG 090 Basic Language Skills or ENG 110S Written Expression I. Students generally begin a composition sequence with ENG 110 Written Expression I.

ENG 090 Basic Language Skills

0 Credits

Writing workshops designed to improve a student's mastery of composition skills, including patterns of sentence structure and the recognition and correction of common errors in grammar and usage. (This course not applicable toward any degree.)

Minimum 3 Class Hours

ENG 106, 107, 108 English-as-a-Second Language

See page 94.

ENG 110 Written Expression I **3 Credits**
Study and practice in the composition of ideas and information. Sentence and paragraph development, unity, coherence, style. Nature of language, including investigation of various aspects of communication to stimulate critical thinking.
3 Class Hours
Prerequisite: Placement test or ENG 090 Basic Language Skills

ENG 110S Written Expression I **3 Credits**
Same as ENG 110 Written Expression I with one additional hour of supplemental help.
4 Class Hours

ENG 120 Written Expression II **3 Credits**
Further study and practice in critical and evaluative writing based upon analysis of major types of imaginative literature. Familiarization and practice with research procedures.
3 Class Hours
Prerequisite: ENG 110 or ENG 110S Written Expression I or permission of instructor

ENG 150 Technical Writing **3 Credits**
Principles and practice of writing to be eventually required of students in technology programs as part of their professional duties. Emphasis on analysis and preparation of reports, articles and technical correspondence.
3 Class Hours
Prerequisite: ENG 107 English as a Second Language, Advanced or ENG 110 or ENG 110S Written Expression I or permission of instructor

ENG 160 Expository Writing **3 Credits**
An intensive course in expository, persuasive and critical writing for students who have already mastered the basic skills of written expression. Emphasis on critical reading of professional essayists and articles.
3 Class Hours
Prerequisite: ENG 120 Written Expression II

ENG 163 Introduction to Journalism **3 Credits**
Journalistic writing and publication, practices utilizing student publication for workshop and actual publication situations. Designed primarily for editors and staff members of Fulcrum, the campus newspaper.

ENG 163L Journalism Laboratory: Fulcrum **1 Credit**
Reporting, writing and editing the Fulcrum, the campus newspaper. Designed for editors and staff members of the Fulcrum.
3 Laboratory Hours (May be repeated for credit)

ENG 164 Journalism Seminar and Practicum **3 Credits**
Seminars presented by professional journalists treating timely and important aspects of news writing and newspaper production. Practicum involving hands-on journalistic activities with local and campus newspapers and information agencies.
3 Class Hours
Prerequisite: ENG 163 Introduction to Journalism or ENG 110 or ENG 110S Written Expression I plus permission of instructor

ENG 165 Creative Writing—Publication **4 Credits**
Designed to provide students interested in imaginative writing with the opportunity to investigate concepts and to practice techniques implicit in prose, poetry and drama. Class discussion, workshops and personal conferences with the instructor. Writing, evaluating and arranging of material for a campus literary magazine.
3 Class Hours plus Workshop Hours

ENG 166 Creative Writing **3 Credits**
Designed to provide students interested in imaginative writing with the opportunity to investigate concepts and to practice techniques implicit in prose, poetry and drama. Class discussion, workshops and personal conferences with the instructor.
3 Class Hours

ENG 299 Independent Study: English **3 Credits**
An individual student project concerned with advanced work in a specific area of language or literature. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.
Prerequisite: One semester of college level work

ENGLISH-AS-A-SECOND-LANGUAGE (ESL) COURSES

International students and residents of other nations may be admitted to the College if they meet special entrance requirements (see page 26). However, admission to the College does not guarantee admission into a particular degree program. All degree programs require English language proficiency equivalent to ENG 106. Students who do not meet this requirement but satisfy other College admission requirements for foreign students are placed into an English-as-a-Second-Language program (ESL) designed to bring their language competency up to a level appropriate for success at most American colleges and universities. Placement is determined after the student arrives on campus and depends on the special language exam administered by the English Department. For students entering at the lowest level of English proficiency, the following two semester program will be necessary.

Semester I (ESL 103 series)		Semester II (ESL 113 series)	
Course	Credits	Course	Credits
ESL 103	5	ESL 113	4
ESL 104	4	ESL 114	4
ESL 105	4	ESL 115	4
SAC 110 (see p. 97)	2	Electives from regular curriculum	3-6
Elective from regular curriculum	3		
	18		15-18

ESL 103 English as a Second Language, Grammar Review **5 Credits**
Intensive review of pre-intermediate levels of the English language for international students. Emphasis on listening, reading, speaking and some aspects of writing. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)
4 Class Hours, 2 Laboratory Hours

ESL 104 English as a Second Language, Basic Speech **4 Credits**
To provide international students with practice, articulation and vocabulary needed to increase self-confidence in English conversation, discussion in the classroom and other daily situations. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)
3 Class Hours, 2 Laboratory Hours

ESL 105 English as a Second Language, Basic Reading **4 Credits**
Review of English sound-symbol correspondence, utilization of brief recombinations of variations of narratives and dialogues, and acquisition of simple reading techniques through exposure to uncomplicated reading selections. Vocabulary and reading comprehension development, aural-lingual practice—active, passive, comparative. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)
3 Class Hours, 2 Laboratory Hours

ESL 113 English as a Second Language, Intermediate Composition

4 Credits

Study of the English language for international students with listening, reading, speaking, writing skills on the intermediate level. Language workshops emphasizing grammar, syntax, vocabulary and composition. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

3 Class Hours, 2 Laboratory Hours

Prerequisite: ESL 103 English as a Second Language, Grammar Review or equivalent

ESL 114 English as a Second Language, Intermediate Speech

4 Credits

Designed for international students emphasizing free and controlled conversation and discussion. Continues practice in articulation, phrasing and vocabulary building. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

3 Class Hours, 2 Laboratory Hours

Prerequisite: ESL 104 English as a Second Language, Basic Speech or equivalent

ESL 115 English as a Second Language, Intermediate Reading

4 Credits

Study of lexical, grammatical, and social-cultural meaning through intensive and extensive reading. Establishment of reading fluency and independence in English. Continues development of vocabulary and reading comprehension. Direct and audio-lingual practice with selected texts and exercises. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

3 Class Hours, 2 Laboratory Hours

Prerequisite: ESL 105 English as a Second Language, Basic Reading or equivalent

Students who enter at the ESL 103 or ESL 113 level will require more than two years to complete a degree. For degree programs requiring six credit hours of English Composition, students may use ENG 106, 107, 108, 110, 120 or 150 depending on their degree program requirements.

ENG 106 English as a Second Language, Intermediate II

3 Credits

Expanded study of the English language for international students. Emphasis on the development of basic English compositional skills. Continued practice in listening, reading and speaking.

3 Class Hours

Prerequisite: ESL 113 English as a Second Language, Series or equivalent

ENG 107 English as a Second Language, Advanced I

3 Credits

Advanced study and practice in the composition of ideas and information for international students. Sentence and paragraph development, unity, coherence, style. Writing workshops for intensive practice in the formation of standard and idiomatic English. Investigation of the nature of language and various aspects of communication to stimulate critical thinking.

3 Class Hours

Prerequisite: ENG 106 English as a Second Language, Intermediate II or equivalent

ENG 108 English as a Second Language, Advanced II

3 Credits

Further study and practice in critical and evaluative thinking and writing for international students, based upon analysis and exposure to prose as well as major types of imaginative literature. Additional practice and familiarization with research procedures. Writing workshops and individual conferences to guide the international student through writing assignments.

3 Class Hours

Prerequisite: ENG 107 English as a Second Language, Advanced I

FIRE PROTECTION TECHNOLOGY

***FRS 101 Fire Prevention and Protection**

3 Credits

Methods, policies and procedures relative to establishing and operating appropriate fire prevention and protection programs.

3 Class Hours

***FRS 103 Fire Fighting Tactics and Strategy**

3 Credits

Focus on pre-planning and the development of fire fighting tactics appropriate for a wide variety of hazards. Review of basic information and some local conditions. The case study method is used to develop plans and tactics relating to the student's own departments.

3 Class Hours

***FRS 105 Arson Investigation**

3 Credits

Fire investigations and arson. Responsibilities of the arson investigator, tools of the investigator, photography, electronic devices, laws pertaining to arson, motives and tools of the arsonist, courtroom procedures. A field experience will be included.

3 Class Hours

***FRS 107 Legal Aspects of the Fire Service**

3 Credits

Laws and regulations as they pertain to the fire service and its personnel. Legal terminology necessary for the interpretation of pertinent laws and decisions. Legal status of the fireman, as well as fireman's rights, duties and liabilities. Responsibilities and powers of the service in enforcement of ordinances and codes.

3 Class Hours

***FRS 108 Building Construction for Fire Science**

3 Credits

Fire fighters are confronted with many unknown factors at the fire ground. Among these is the unknown structural stability of the buildings they must enter. Basic principles of building construction and design with emphasis focused on fire protection concerns. Building materials included.

3 Class Hours

***FRS 200 Hazardous Materials**

3 Credits

Chemicals and chemical processes most closely involved in fire protection and fire fighting. Use, storage, transportation and disposal of hazardous materials with emphasis on flammable liquids, flammable solids, oxidizing materials, corrosive liquids, compressed gases.

3 Class Hours

Prerequisite: Chemistry

***FRS 201 Fire Service Hydraulics**

3 Credits

Application of the laws of mathematics and physics to properties of fluid states, force pressure and flow velocities. Emphasis in applying principles of hydraulics to fire-fighting problems.

3 Class Hours

Prerequisite: MAT 139 Algebra

***FRS 205 Fire Department Administration**

3 Credits

Organization of the fire departments with emphasis on personal management, distribution of equipment, maintenance of records, communications, data collection and community relations. ISO Grading Schedule.

3 Class Hours

***FRS 210 Fire Safety-Building Design**

3 Credits

Advanced principles of building design, stability, collapsibility, testing procedures, emergency operations, review of accidents, field trips.

3 Class Hours

*** TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

FRS 250 Special Topics

Exploration of special topics in Fire Protection Technology. May be repeated since topics will vary from semester to semester.

1-3 Credits

FRS 299 Independent Study: Fire Service

An individual student project in an area of fire protection or service beyond the scope of regular coursework. Conducted under supervision of coordinator and approved by department chairperson.

1-3 Credits

Prerequisites: 6 Credits in FRS coursework and 6 Credits in General Education courses

FRENCH

PLACEMENT IN LANGUAGE—Generally one year of high school foreign language is equivalent to one semester in college. Students with two years of language in high school should register for intermediate level courses.

FRE 101, 102 Beginning French

4, 4 Credits

Basic principles of grammar and syntax. Emphasis on oral practice in classroom, supplemented by work in audio-lingual laboratory. Reading and discussion of graded literacy and cultural texts.

4 Class Hours

Prerequisite: FRE 101 Beginning French for FRE 102

FRE 201 Intermediate French I

3 Credits

Intensive review of grammar and syntax and oral practice in classroom and audio-lingual laboratory. Reading and discussion of works selected by the instructor.

3 Class Hours

Prerequisite: FRE 102 Beginning French

FRE 202 Intermediate French II

3 Credits

Reading of literary works of recognized authors. Continuation of grammar, syntax and oral practices in classroom and audio-lingual laboratory.

3 Class Hours

Prerequisite: FRE 201 Intermediate French I

GEOGRAPHY

GEO 110 Physical Geography

3 Credits

Interrelationships of global systems of climate, vegetation, soils, landform development and their significance to humans. The impact of human presence upon natural systems.

3 Class Hours

GERMAN

GER 100 Practical German: 10 Minutes a Day

2 Credits

Practical and simplified approach to speaking and understanding German. Emphasis on important and necessary aspects of everyday communication. Vocabulary and pronunciation acquisition through use of instructor's expertise, flash cards, stickers, illustration, and sign recognition. (Does not satisfy language requirement.)

2 Class Hours

GER 101, 102 Beginning German

4,4 Credits

Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Written homework assignments, supplemented by work in audio-lingual laboratory. Reading and discussion of graded literary and cultural texts.

4 Class Hours

Prerequisite: GER 101 Beginning German for GER 102

HEALTH SERVICES

HSV 101 Cardio-Pulmonary Resuscitation

½ Credits

Procedures necessary in administering CPR in emergency situations. American Red Cross modular method of teaching with certification. Performance of mastery level learning by demonstration and exam. Required for all Health Science students. Will be given in 2-hour sessions to make a total of 8 hours.

8 Hours for semester

HISTORY

Either HIS 100 The Rise of the West or HIS 115 Modern Global History is a core course required of all Liberal Arts students. Either one is a prerequisite for some other history (HIS) courses. However, even where it is not a prerequisite, students are urged to complete one of these courses before enrolling in any other history course.

HIS 100 The Rise of The West

3 Credits

Introduction to both the study of history and the evolution of modern society, including its basic ideas, values and institutions, through an examination of Western Civilization. The Age of Transition—the Renaissance, the Reformation, the Scientific Revolution, and the Enlightenment. The Industrial Transformation, appearance of modern constitutional and authoritarian government, major socio-political ideologies—liberalism, socialism, communism, nationalism, imperialism, fascism, totalitarianism. The intellectual crisis of the 20th Century, World Wars I and II.

3 Class Hours

HIS 115 Modern Global History: The World in Transition

3 Credits

Historical Development of Western Civilization in the 19th-20th centuries, contrasted with selected non-Western societies. The key theme of the effects of modernity examined in several aspects: the regional nature of geography and demography; the important influences of traditional values and religious beliefs in the areas selected for study; the evolution of capitalism, socialism, communism, and nationalism and how these concepts affected less developed countries; the impact of industrialization, colonialism, technology and science on the peoples of the contemporary world.

3 Class Hours

CIVILIZATION SURVEYS (HIS 130-161)

Liberal Arts students may select any one of the following courses in order to satisfy the remainder of the history requirement.

HIS 130 United States History I 3 Credits

The United States from 1607 to 1898. The colonies, Revolution, Constitution, early national period, Age of Jackson, expansion, Civil War and Reconstruction, the West and the Gilded Age. Survey of political, economic, cultural developments through the 19th Century
3 Class Hours

HIS 131 United States History II 3 Credits

The United States from 1898 to the present. The American Empire, progressive reforms, World War I, the Twenties, Depression, New Deal, World War II and the Cold War, post-war domestic issues.
3 Class Hours

HIS 140 History of Latin America 3 Credits

History of Latin America from the Age of Discovery and Conquest through the 19th century (1492 to 1890). Indian cultures of Central and South America (Aztec, Inca, Maya), Spanish conquistadors (Cortes, Pizarro), Portuguese adventurers, imposition of European rule, Independence Wars, national identities, rise of the masses. Story of economic oppression, political authoritarianism, cultural vitality, and triumph over despair.
3 Class Hours

HIS 141 History of Latin America II 3 Credits

History of Latin America from the 1890's to the present, emphasizing the causes of political instability and economic backwardness. Close analyses of reform, reactionary and revolutionary movements in modern Latin America and of inter-American affairs.
3 Class Hours

SPECIAL TOPICS IN HISTORY (HIS 170-199)

HIS 170 The Future as History: A Look at the 21st Century United States 3 Credits

Does the future have to be a shock? The objective of this course is to prove it does not have to be. Three or four possible courses which the next 100 years may take will be plotted, using knowledge of the economic, political and social developments of the past 100 years of U.S. history and a basic understanding of the present day situation.
3 Class Hours

Prerequisite: HIS 130 United States History I or HIS 131 United States History II or POS 201 Introduction to American Government

HIS 175 Local History 3 Credits

The early history of our local area including the late 18th Century Indian communities and the growth of 19th Century white settlements through development of industries and institutions from the days of the frontiersmen to the era of the railroaders and the factory hands. Historical methods of research. An historical walking tour of Binghamton, investigation of historical records on the premises of cooperative local institutions, and observation of contributions to local history. (Formerly HIS 231.)
3 Class Hours

HIS 180 Utopia: The History of Perfect Societies 3 Credits

Examines the relationship between the "real" and the "ideal" in fictional and actual utopian communities. Comparisons of utopian thought from the classical, medieval and modern periods, from the Garden of Eden to the contemporary commune. Writings of Plato, More, Condorcet, Owen, Saint-Simon, Fourier, Marx, Wells, Huxley, Teilhard de Chardin, Wagar and others.
3 Class Hours

HIS 183 Herstory: Woman As A Historical Force 3 Credits

A look at various ideologies about women compared to reality; varying attitudes toward women and where they originated; resulting roles assigned and contributions made by women in western civilization, with emphasis on the United States.
3 Class Hours

HIS 185 Hitler and The Nazi Dictatorship 3 Credits

Origins of National Socialism, role of Adolf Hitler, road to Nazi Dictatorship, Nazi political and social revolutions, Hitler's foreign policy and Europe's reaction, World War II and Hitler's "New Order," Nazi system of persecution and genocide, collapse of the 1,000-year Reich, legacy of the Hitler period.
3 Class Hours

HIS 186 Modern American Social History 3 Credits

Historical currents of social change and reform in the 20th Century from the latter part of the 19th Century through the "Great Society" era to the current "Voluntarism." Reformist themes bearing on health, welfare, labor, women's suffrage, civil rights movement and recent challenges to traditional American family structures and values against the backdrop of hostile and supportive private groups. Creation of public institutions to meet human needs, such as Social Security. Response of the courts to organized reformist pressures. Contemporary trends suggest major changes after a half century of government intervention in social needs.
3 Class Hours

HIS 190 The World Since 1945 3 Credits

An overview of the changing patterns in world affairs since the end of World War II in 1945. For example, emergence of the Third World, the Cold War, responses to scientific/technological change, insurgent movements, attempts at world organization/disarmament, the energy/ecology crisis, the various trouble spots like the Middle East, Panama Canal, Berlin.
3 Class Hours
Prerequisite: HIS 100 The Rise of the West or HIS 131 United States History II or HIS 115 Modern Global History

SHORT MODULES (HIS 200-295)

The department offers special short modules of courses that carry one credit each. These deal with concentrated topics in history and are less than one semester in length. For example, modules have been given in "The Great Man in History" series focusing on Adolf Hitler, Fidel Castro, Charles Darwin and Chairman Mao Tse-tung, each covering a 5-week period.

HIS 200 Series—Great Figures in History 1 Credit

Examining the advantages and disadvantages of using a biographical approach to the study of a particular period in history. In analyzing a "great figure," the student studies the interconnections between the actions of a great person, the role of chance and pressures of major social forces in shaping the course of human history.
3 Class Hours (For 5 weeks)

HIS 299 Independent Study 1-3 Credits

An independent student project which is beyond the scope of courses currently offered by the department, directed by a faculty member with approval of the department chairperson. Independent study does not satisfy the Liberal Arts requirement in history, and it may not be taken in lieu of a 100-series course.
Prerequisite: HIS 100 The Rise of the West or HIS 115 Modern Global History

HUMAN DEVELOPMENT COURSES

Across the nation students have indicated that they want the opportunity in college to identify, pursue and accomplish personal goals, to develop healthier self-concepts, to develop more effective levels of self-understanding and to become open human beings who can build trusting relationships with others. The student affairs courses can be one means of facilitating humanistic objectives espoused by "new" college students.

SAC 101 The Individual in a Changing Environment

3 Credits

Individual interaction and reading designed to foster understanding and application of psychological and emotional growth. Basic class material is the individual and group analysis of student's experience within an immediate unstructured setting. Focus on analysis and organization of experience into a personally rewarding conception of growth. Individual self-development projects outside the class.

3 Class Hours

SAC 110 Orientation for International Students

2 Credits

An orientation course for international students designed to aid in their adjustment as students at Broome Community College. Study skills, academic regulations, the American educational system, individual educational and vocational goals, American customs. Especially intended for students during their initial semester of enrollment in conjunction with English-as-a-Second-Language course offerings, such as ESL 103, 104, 105. (This course is not acceptable for credits toward a degree.)

2 Class Hours

SAC 250 Career Exploration

3 Credits

How to plan, establish, change a career. The process of deciding on a career and implementing career goals, assessment of values, interests and skills plus their relationship to occupations. Analysis of the labor market needs, identification of employers and sources of occupation information, the means of securing employment through proposals, resumes, applications and job interviews. Supportive small group atmosphere. Class activities include discussion, speakers, testing, and individual counseling.

3 Class Hours

SAC 251 Career Search

1 Credit

For people who know their interests, skills, and values but are not sure which career field or life styles would be most satisfying to them. Sources of occupational information, analysis of labor market needs, what colleges and college majors best prepare students for their career goals. For students who are beginning a career, changing careers, or returning to the job market. For students who scored 13-18 on My Vocational Situation. Supportive small group atmosphere. Discussion sessions, speakers, testing, field work, and individual counseling.

2 Seminar Hours

SAC 295, 296 Seminar in Human Potential

3, 2, Credits

Human Potential focuses on the person's own resources, strengths, motivators, values and successful and satisfying experiences. Human potential sessions are positive group experiences working on and with the potential and strengths of the feeling concerning one's self and others by utilizing specific procedures.

3, 2 Class Hours

INDUSTRIAL SAFETY AND OCCUPATIONAL HYGIENE

***SAF 100 OSHA Codes and Regulations**

3 Credits

In-depth study of the Federal Occupational Safety and Health Act of 1970 (OSHA). Other pertinent laws for the protection of the ambient and occupational environments, how they are put together, what is pertinent and how they are used.

3 Class Hours

***SAF 101 Accident Investigation and Prevention**

3 Credits

Identification of present and future hazards in facilities, operations and products. Methods of investigation of hazards, reports of injuries, property damage and their causes. Development of accident prevention and loss control methods, procedures and programs.

3 Class Hours

***SAF 102 Design and Evaluation of a Safety Program**

3 Credits

Development of comprehensive program to protect the employee from potential health hazards in the work environment. Elements of a comprehensive industrial hygiene survey: evaluating existing control mechanisms, review of process or operations, inventory of hazardous materials sources, field study and results, corrective action plan and methods of control.

3 Class Hours

***SAF 105 Material Handling and Storage of Special and Common Products**

3 Credits

An in-depth study of handling and storage principles and procedures. Personal injuries, improper techniques and hazards of special materials, as well as correct methods and procedures. Visits to industrial sites.

3 Class Hours

***SAF 110 Ventilation and Exhaust**

3 Credits

Principles of ventilation and ventilation control. Students will visit various industries to study the practical application of systems, engineering problems, methods of control of industrial wastes through the systems.

3 Class Hours

***SAF 111 Machine Guarding**

3 Credits

Various types of methods and systems in use, advantages and disadvantages of types, design of appropriate machine guarding for work being done. Visits to industrial sites.

3 Class Hours

***SAF 120 Introduction to Industrial Hygiene**

3 Credits

Fundamentals of industrial hygiene, review of basic mathematics, chemical concepts, associated biochemical concepts, industrial toxicology techniques. Use of guides, codes, regulations and standards for chemical and physical agents, concepts of a noise program and air sampling.

3 Class Hours

Prerequisite: Chemistry or permission of instructor

***SAF 250 Special Topics: Safety**

1-3 Credits

An opportunity to explore in depth special topics and problems in Industrial Safety and Health. May be repeated once for credit as the subjects will vary from semester to semester.

***SAF 299 Independent Study**

1-3 Credits

An individual student project beyond the scope of regular coursework. Conducted under supervision of coordinator and approved by department chairperson.

Prerequisites: 6 Credits in Industrial Safety and Occupational Hygiene courses

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

INTERIOR DESIGN

INT 101 History of Architecture— Exterior and Interior

3 Credits

Survey of exterior and interior architectural styles from Ancient Egyptian through 20th Century.
3 Class Hours

INT 110 Interior Design I

4 Credits

Projects in residential interior design including color coordination, floor plan, space utilization. Study of currently available resources.

2 Class Hours, 4 Studio Hours

Prerequisite: ART 105 Introduction to Design

Recommended: CIV 117 Architectural Drafting and INT 101 History of Architecture—Interior and Exterior

INT 111 Interior Design II

4 Credits

Two major projects, one commercial and one residential, stressing space utilization. Contrasting building types must be selected for the projects, one contemporary form and one traditional.

2 Class Hours, 4 Studio Hours

Prerequisite: INT 110 Interior Design I

INT 120 Construction and Workroom Technique I

2 Credits

Study of processes, manufacture and installation of interior design products.

2 Class Hours

INT 121 Specification Writing for Interior Designers

2 Credits

Techniques used in writing specifications for interior design projects.

2 Class Hours, 1 Studio Hour

INT 130 Rendering

2 Credits

Perspectives of room interiors: treats the problems of representation related to light, texture and color.

4 Studio Hours

INT 140 Fabric Analysis

2 Credits

Types of fabrics used in interior design including methods of manufacturing, fiber and construction analysis, historical origins.

2 Class Hours

ITALIAN

PLACEMENT IN LANGUAGE—Generally one year of high school foreign language is equivalent to one semester in college. Students with two years of a language in high school should register for intermediate level courses.

ITA 101, 102 Beginning Italian

4, 4 Credits

Basic principles of grammar and syntax. Emphasis on oral practice in classroom, supplemented by work in audio-lingual laboratory. Reading and discussion of graded literary and cultural texts.

4 Class Hours

Prerequisite: ITA 101 Beginning Italian for ITA 102

ITA 201 Intermediate Italian I

3 Credits

Comprehensive review of grammar and structure of the language. Intensive reading of literary works as a basis for topics of conversation in Italian in the classroom. Emphasis on aural comprehension and oral practice in classroom and audio-lingual laboratory.

3 Class Hours

Prerequisite: ITA 102 Beginning Italian

ITA 202 Intermediate Italian II

3 Credits

Intensive reading of literary works of recognized authors as a basis for topics of conversation in Italian in the classroom. Practice in audio-lingual laboratory.

3 Class Hours

Prerequisite: ITA 201 Intermediate Italian I

ITA 299 Independent Study: Italian

1-3 Credits

An individualized student project concerned with advanced work in a specific area of Italian. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 semester hours of college level work in Italian

LITERATURE

The Department of English recommends that students complete a composition program before taking literature courses.

LIT 210 Studies in United States Literature I

3 Credits

History and development of United States literature from colonial period to late 19th Century. Emphasis on several major writers of the period.

3 Class Hours

LIT 211 Studies in United States Literature II

3 Credits

History and development of United States literature from late 19th Century to the present. Emphasis on several major writers of the period.

3 Class Hours

LIT 214 Studies in British Literature I

3 Credits

History and development of British literature from the Middle Ages to the 18th Century. Selections of literary merit from prose, drama, poetry.

3 Class Hours

LIT 215 Studies in British Literature II

3 Credits

History and development of British literature from the beginning of the 18th Century to the middle of the 20th.

3 Class Hours

LIT 220 The World of the Short Story

3 Credits

An examination of the development of American, British and Continental short stories. Emphasis on theme and structure.

3 Class Hours

LIT 230 American Drama

3 Credits

Studies in dramatic theories, techniques and thematic problems of the American drama. (Students taking this course may also be interested in THR 101 Fine Arts: Introduction to Theatre and THR 111 Acting).

3 Class Hours

LIT 233 World Drama

Studies in dramatic theories, techniques and thematic relationships of the world drama. (Students taking this course may also be interested in THR 101 Fine Arts: Introduction to Theatre and THR 111 Acting).
3 Class Hours

3 Credits**LIT 235 Tragic and Comic Vision of Shakespeare**

Shakespeare as both dramatist and poet. Emphasis on selected comedies, histories, tragedies.
3 Class Hours

3 Credits**LIT 240 The Poetic Experience:
Sight and Sound**

An exploration of the different modes and moods of poetic expression. A thematic and structural approach to poetry as a total experience.
3 Class Hours

3 Credits**LIT 250 Portraits of Women:
Searching for Understanding**

An in-depth examination of what it means to be a woman as presented by representative literary artists, both women and men, in critically acclaimed pieces of literature. Emphasis on 19th and 20th Century material.
3 Class Hours

3 Credits**LIT 253 Psychological Investigation
in Literature**

The application of Jungian, Freudian and other psychological theories and insights to selected short stories, novels, and poems to promote more penetrating appreciation of characters' motivations and actions and the literary work in general.
3 Class Hours

3 Credits**LIT 255 Modern Existential Literature**

An investigation of the themes of alienation and the absurd in selected prose and poetry to shed light on man's current existential crisis.
3 Class Hours

3 Credits**LIT 257 Heritage of Modern Literature**

An attempt to define modern literature as an embodiment and development of antique themes and traditions through the comparative study of the epic, the novel and related genre.
3 Class Hours

3 Credits**LIT 260 Detective Fiction**

A critical study of one of the most popular literary forms of our time, designed for armchair detectives. Starting with Poe, Conan Doyle (Sherlock Holmes) and other classics in the field, the course traces the development of the detective story from its puzzle-solving beginnings to the modern psychological novel of crime and detection.
3 Class Hours

3 Credits**LIT 263 Children's Literature**

Children's literature with introduction to the variety of books available today and development of standards for evaluating them. Prime concern is to help the student use literature with children creatively, recognizing the importance of language, arts, communication and listening skills in cognitive development.
3 Class Hours

3 Credits**LIT 265 Biblical Literature**

An acquisition of the skills necessary to study the Bible. Emphasis on the Biblical narrative and its relationship to Western culture through reading and analysis.
3 Class Hours

3 Credits**LIT 268 Fantasy and the Anti-Story**

An overview of two popular literary types: fantasy and anti-story. History of these types, with focus mainly on 20th Century development as the types have matured. Students read non-realistic fiction.
3 Class Hours

3 Credits**LIT 269 Prison Literature**

An examination of the prison experience through a variety of readings in prose and poetry focusing on man's continuing struggle to understand this social phenomenon.
3 Class Hours

3 Credits

MARKETING & MANAGEMENT COURSES
are under the Business heading
starting on page 72

MATHEMATICS**MAT 003 Basic Mathematics Review****0 Credits**

Basic Mathematics Review is designed to give the student proficiency in elementary mathematics and provide a firm foundation for credit courses. It consists of three units allowing each department to select the units needed as prerequisites for its courses or programs.
3 Class Hours

A. Arithmetic and Introduction to Algebra

Arithmetic of whole numbers, fractions and decimals. Percent, measurement, metric units, ratio and proportion. Language of algebra, arithmetic of signed numbers, solving simple equations. Problem solving.

B. Elementary Algebra

Addition, subtraction, multiplication, division and simplification of algebraic expressions. Graphing. Solving linear equations and inequalities in two variables.

Prerequisite: Basic Mathematics Review A**C. Geometry and Introduction to Trigonometry**

Properties and measurements of angles. Similar and congruent triangles, polygons and circles. Perimeter, area and volume measurements. Use of trigonometric ratios to solve right triangle problems.

Prerequisite: Basic Mathematics Review A**D. Metric Conversions and Dosage Computation**

Common fractions and decimal fractions. Percentages, ratios and proportions. Metric computations. Apothecary systems. Metric and household conversions. Calculation of dosages. Designed to meet the mathematics proficiency required for clinical nursing course.

Prerequisite: Basic Mathematics Review B

Basic Mathematics Review is typically available in both a traditional lecture format or as a self-paced course. Students in the self-paced course use audio-visual aids with a self-study manual, and they work individually with the instructor.

A complete sequence of Basic Math Review would begin with the first section of Arithmetic and Introduction to Algebra and end with the last section of Geometry and Introduction to Trigonometry. But few students study the entire sequence. In the self-study sections, the entry point in the sequence is determined by a placement test. The exit point is usually determined by the student's program requirements. All units are available in every scheduled section.
This course not applicable toward any degrees.

MAT 110 Consumer Mathematics

3 Credits

Experience in applying mathematics to consumer matters. Learning activities include using bank accounts, preparing budgets, using credits, buying a car and house, purchasing insurance, completing income tax forms. *Does not meet Mathematics requirement for AA/AS degrees.*

3 Class Hours

MAT 113 Mathematics: A Liberal Art

3 Credits

An introduction to the variety and structural beauty of mathematics. Inductive and deductive reasoning, games and sequences, elementary probability, statistics, statistical graphs, misleading uses of statistics, Möbius strips. Computer applications will support many of the topics. For Liberal Arts students; recommended for Fine Arts or Humanities majors; not for Science majors.

3 Class Hours

Prerequisite: MAT 003A Basic Mathematics Review or equivalent

MAT 117 Elementary Finite Mathematics with Algebra

4 Credits

Sets, probability, matrix algebra, graphing, inequalities, linear programming, permutations and combinations, linear models of equilibrium, systems of linear equations, solving equations and inequalities.

4 Class Hours

Prerequisite: MAT 003A Basic Mathematics Review or Equivalent

MAT 119 Modern Basic Mathematics I

3 Credits

Algebra of propositions, Algebra of sets. Systems of numeration other than base ten. Properties of the operations of addition and multiplication for the sets of whole numbers integers and rational numbers. Introduction to number theory. For Liberal Arts Students; recommended for elementary education majors. (Formerly MAT 131 Modern Basic Mathematics I).

3 Class Hours

Prerequisite: MAT 003B Basic Mathematics Review or equivalent

MAT 120 Modern Basic Mathematics II

3 Credits

Real number systems, other mathematical systems. Informal geometry, congruence, measurement of areas and volumes, basic constructions. Coordinate geometry, lines, circles, equations. Inequalities and linear programming. Simple and conditional probability. Introduction to statistics.

3 Class Hours

Prerequisite: MAT 119 Modern Basic Mathematics I or MAT 003C Basic Mathematics Review or equivalent

MAT 121 Finite Mathematics

3 Credits

Boolean Logic, matrices, linear programming, simplex game theory, graphs, networks, application of networks and graphs.

3 Class Hours

Prerequisite: MAT 003B Basic Mathematics Review or equivalent

MAT 124 Statistics

3 Credits

Descriptive statistics, organization and presentation of data, measures of central tendency. Variance, standard deviation, binomial distribution, statistical inference. Random sampling, hypothesis testing, confidence intervals, normal distribution, analysis of variance. Chi-square distribution, students t-distribution, correlation and regression. (Formerly MAT 114 Statistics).

3 Class Hours

Prerequisite: MAT 003B Basic Mathematics Review or equivalent

MAT 125 Statistics I Using Computers

3 Credits

Introducing the computer language MINITAB to analyze: descriptive statistics, organization and presentation of data, measures of central tendency, standard deviation, binomial distribution, statistical inference, random sampling, hypothesis testing, confidence intervals, normal distribution, Chi-square distribution, student's t distribution, correlation and regression.

3 Class Hours, 1 Laboratory Hour

Prerequisite: MAT 003B Basic Mathematics Review

MAT 139 Algebra

4 Credits

Real and complex numbers, algebraic operations, functions and graphs, exponents and logarithms, linear and quadratic equations, systems of linear equations, linear inequalities, the binomial theorem, matrices and determinants.

4 Class Hours

Prerequisite: MAT 003B Basic Mathematics Review or equivalent

MAT 140 Trigonometry

4 Credits

Trigonometric functions and their graphs, solution of triangles, trigonometric identities and equations, inverse trigonometric functions, position vectors, polar representation of complex numbers. DeMoivre's theorem.

4 Class Hours

Prerequisite: MAT 139 Algebra or equivalent

MAT 141 Algebra and Trigonometry

4 Credits

A review of algebra and trigonometry emphasizing computational skills and technical applications. Algebraic operations, functions and graphs, exponents and logarithms, linear equations, system of linear equations and determinants. Trigonometry and the solution of triangles, trigonometric functions and their graphs, quadratic equations, vectors, complex numbers. For engineering technology students.

4 Class Hours

Placement by technical program advisor

MAT 142 Applied Calculus I

4 Credits

Basic analytic geometry, distance, equations of lines. Limits, continuity and the derivative. Differentiation of polynomials, maxima and minima. Differentials and approximation, applications in kinematics and circuits. The definite integral and applications to finding area, center of gravity, volume of revolution, work done. Approximate integration, differentiating products and quotients, implicit differentiation and related rates, differentiation and integration of logarithmic, exponential, trigonometric and inverse trigonometric functions.

4 Class Hours

Prerequisite: MAT 141 Algebra and Trigonometry or MAT 140 Trigonometry

MAT 143 Applied Calculus II

4 Credits

Integration by substitution, by partial fractions and by parts, improper integrals; partial derivatives; iterated and double integrals; polar coordinates; curve plotting and area; sequences; series; convergence tests; power series first and second order linear differential equations; Fourier series and Laplace Transforms.

4 Class Hours

Prerequisite: MAT 142 Applied Calculus I

MAT 146 Introduction to Calculus

3 Credits

Analytic geometry of line, circle and parabola. Functions and their graphs. Limits and continuity, differentiation—rules and applications, integration—techniques and applications. Exponential and logarithmic functions and applications. Recommended for social science, health science and business students. Not for math majors or science majors in the A.S. degree program. (Formerly MAT 122).

3 Class Hours

Prerequisite: MAT 139 Algebra or equivalent

MAT 152 Discrete Mathematics

4 Credits

Topics from mathematics needed to understand the operation and use of the digital computer. Logic and truth tables, algebra of sets, relations, equivalence relations, partitions, functions. Vectors, matrices, matrix algebra, determinants. Systems of linear equations, linear programming, Gaussian elimination. Fundamental principles of counting, binomial coefficients, permutations, combinations, probability, conditional probability, Graph theory, connectivity, trees, rooted trees, directed graphs; finite state machines, strings.

4 Class Hours

Prerequisite: CST 113 Pascal with Structured Programming and MAT 139 Algebra

MAT 161 Pre-Calculus Mathematics**4 Credits**

Sets, the real number system, inequalities, graphing and the Cartesian Coordinate System, functions and their properties, inverse functions, exponential and logarithmic functions, trigonometric functions, systems of equations, complex numbers and theory of equations.

4 Class Hours**Prerequisite:** MAT 139 Algebra or equivalent**MAT 164 Calculus with Analytic Geometry II****4 Credits**

Differentiation and integration of logarithmic, exponential, hyperbolic functions, inverse trigonometric, inverse hyperbolic functions and parametric expressions. Techniques of integration including integration by parts, partial fractions and trigonometric substitution. Improper integrals, indeterminate forms and L'Hopitals rule. Infinite series and convergence testing. The Polar Coordinate System and its applications. Vectors in two and three dimensions. Unit tangents and normals. Lines in three space. Dot and cross product.

4 Class Hours**Prerequisite:** MAT 163 Calculus with Analytic Geometry I***MAT 172 Engineering Calculus with Analytic Geometry II****4 Credits**

Differentiation of trigonometric, inverse trigonometric, exponential and logarithmic functions. Integration of trigonometric and exponential functions, techniques of integration. Conic sections, hyperbolic functions, polar coordinates, plane and space vectors, scalar and vectors products.

4 Class Hours**Prerequisite:** MAT 171 Engineering Calculus with Analytic Geometry I**MAT 181 Calculus I with Analytic Geometry****4 Credits**

A university-parallel calculus course covering equations of lines, functions, limits and continuity. Differentiation of algebraic and trigonometric functions with applications including curve sketching, rectilinear motion, related rates, maxima and minima. Summation, integration and the fundamental theorem of calculus. Applications of the definite integral including area, volume, arc length, surface area, work and centroids.

4 Class Hours**Prerequisite:** MAT 161 Pre-Calculus Mathematics, MAT 141 Algebra and Trigonometry or placement by advisor**MAT 182 Calculus II with Analytic Geometry****4 Credits**

Differentiation and integration of logarithmic, exponential, hyperbolic functions, inverse trigonometric, inverse hyperbolic functions and parametric expressions. Techniques of integration including integration by parts, partial fractions and trigonometric substitution. Improper integrals, indeterminate forms and L'Hopitals rule. Infinite series and convergence testing. The Polar Coordinate System and its applications. Vectors in two and three dimensions. Unit tangents and normals. Lines in three space. Dot and cross product. Sequences, lines, integral test for convergence of a series.

4 Class Hours**Prerequisite:** MAT 181 Calculus I with Analytic Geometry**MAT 252 Mathematical Modeling with the Computer****4 Credits**

Computer techniques for the modeling and solutions of problems in numerical analysis. Error analysis, roots of equations, linear and non-linear systems of equations, calculus of finite differences, numerical integration, curve fitting, numerical solution of ordinary differential equations. The computer language Pascal is used.

4 Class Hours**Prerequisites:** CST 113 Pascal with Structured Programming and either MAT 164 Calculus with Analytic Geometry II or MAT 172 Engineering Calculus with Analytic Geometry II or MAT 182 Calculus II with Analytic Geometry**MAT 263 Calculus with Analytic Geometry III****4 Credits**

Sequences, series, power series and radius of convergence. Conic sections and rotation of axes. Three dimensional analytic geometry and vectors including equations of lines and planes, scalar and vector products, cylindrical and spherical coordinates. Partial differentiation, directional derivatives, gradients, maxima and minima. Volume and other applications done by multiple integrals. Line integrals and Green's theorem.

4 Class Hours**Prerequisite:** MAT 164 Calculus with Analytic Geometry II**MAT 264 Linear Algebra****4 Credits**

Linear equations and matrices, real vector spaces, the algebra of linear transformations and matrices, determinants, eigenvalues and eigenvectors.

4 Class Hours**Prerequisite:** MAT 164 Calculus with Analytic Geometry II or MAT 172 Engineering Calculus with Analytic Geometry II or MAT 182 Calculus II with Analytic Geometry**MAT 266 Introduction to Higher Mathematics****3 Credits**

Exposure to basic mathematical methods and concepts. Sets, sequences, mappings, convergence. Preparation for analysis, topology and modern algebra. Recommended for Mathematics majors, Computer Science students and Engineering Science students, as advised.

3 Class Hours**Prerequisite or corequisite:** MAT 263 Calculus with Analytic Geometry III or MAT 271 Engineering Calculus with Analytic Geometry III or permission of instructor or MAT 281 Calculus III with Analytic Geometry**MAT 271 Engineering Calculus with Analytic Geometry III****4 Credits**

Partial differentiation, gradient, maxima and minima, double and triple integrals applied to areas and volumes. Cylindrical and spherical coordinates, line and surface integrals, infinite series, Taylor's Theorem, complex numbers and functions.

4 Class Hours**Prerequisite:** MAT 172 Engineering Calculus with Analytic Geometry II**MAT 281 Calculus III with Analytic Geometry****4 Credits**

Power series, radius of convergence. Conic sections and rotation of axes. Partial differentiation, directional derivatives, gradients, maxima and minima. Volume and other applications done by multiple integrals. Introduction to first order differential equations.

4 Class Hours**Prerequisite:** MAT 182 Calculus II with Analytic Geometry**MAT 282 Differential Equations with Linear Algebra****4 Credits**

First order differential equations. Matrices, determinants and solutions of systems of linear equations. Vector spaces, Wronskians, linear transformations and differential operations. Characteristic values and vectors, real symmetric matrices, functions of matrices. Homogeneous and nonhomogeneous linear differential equations with constant coefficients, undetermined coefficients and variations of parameters. Matrix formulation of linear systems of differential equations and solution by characteristic values, the exponential matrix function and nonhomogeneous linear systems.

4 Class Hours**Prerequisite:** MAT 271 Engineering Calculus with Analytic Geometry III or MAT 263 Calculus with Analytic Geometry III**MAT 299 Independent Study****1-4 Credits**

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

Prerequisite: Department Chairperson Permission

MECHANICAL ENGINEERING TECHNOLOGY

MET 110 Introduction to Technologies 1/2 Credits

Introduction to the college and its policies, placement, transfer and study skills. Reasonable proficiency in the use of the hand calculator is developed.
1 Class Hour

MET 113 Engineering Drawing I 2 Credits

Basic course that includes lettering, line and instrument exercises, orthographic projection, sketching, dimensioning, auxiliary views, sections, threads, fasteners, fits and tolerances.
1 Class Hour, 2 Laboratory Hours

MET 114 Engineering Drawing II 2 Credits

Fits and tolerances, developments and intersections, pictorial drawings and descriptive geometry.
1 Class Hour, 2 Laboratory Hours
Prerequisite: MET 113 Engineering Drawing I

MET 115 Engineering Graphics 2 Credits

Fundamentals of Engineering Drawing including instruments, linework, lettering geometric constructions, orthographic projection, sections, auxiliary views, pictorial drawings and dimensioning and tolerancing. Fundamentals of descriptive geometry, including visibility, true length, true shape, parallelism, perpendicularity, intersections, and developments.
1 Class Hour, 2 Laboratory Hours

MET 121 Manufacturing Processes I 3 Credits

A basic study of manufacturing materials and processes, such as casting metal, production of ferrous and non-ferrous metals and shape changing processes of hot and cold working techniques. Oxyacetylene, arc, resistance welding. Machine tool operation, instrumentation and measurement.
2 Class Hours, 2 Laboratory Hours

MET 122 Manufacturing Processes II 2 Credits

Abrasives and grinding, indexing, gearing, special machining processes such as numerical control and electrical discharge machining. Advanced elements of machine tool operation including the use of grinding machines, turret lathe, honing, lapping.
1 Class Hour, 3 Laboratory Hours
Prerequisite: MET 121 Manufacturing Processes I

MET 125 Programming Numerical Control Machine Tools 2 Credits

Rectangular coordinate system, point to point and continuous path programming, reading and preparation of perforated tape and actual programming of certain numerical control equipment. Computer assisted programming and the relationship of group technology will be discussed.
2 Class Hours
Prerequisites: MAT 139 Algebra or equivalent and MET 122 Manufacturing Processes II or instructor's approval

MET 129 Survey of Engineering Laboratories 3 Credits

Engineering materials, physical tests and manufacturing processes encountered in mechanical technology laboratories. Lectures, demonstrations and participation in manufacturing processes, casting, welding and forging, metallurgy, strength of materials, fluids and thermodynamics, technical sketching and blueprint reading, scientific calculators. For Secretarial Science students.
2 Class Hours, 2 Laboratory Hours

MET 132 Applied Mechanics 4 Credits

STATICS: Free body diagram, trusses, friction, centroids, moments of inertia.
DYNAMICS: Motion of particles and bodies without consideration of the forces required to produce or maintain motion (kinematics), unbalanced forces and the motion they produce (kinetics), work and energy, impulse and momentum.
4 Class Hours
Prerequisites: PHY 141 Physics and MAT 141 Algebra and Trigonometry or equivalent or department chairperson approval

MET 223 Manufacturing Processes III 2 Credits

Further experience with indexing, spiral work, cams, cylindrical grinding.
1 Class Hour, 2 Laboratory Hours
Prerequisite: MET 122 Manufacturing Processes II

MET 235 Strength of Materials 3 Credits

Normal and shear stress and strain, elastic and plastic deformation, torsion, stress in thin-walled cylinders, joints, shear force and bending moment in beams, beam stresses, beam deflection, multi-directional plane stress.
2 Class Hours, 3 Laboratory Hours
Prerequisite: MET 132 Applied Mechanics

MET 238 Mechanical Design 4 Credits

An analysis of machine motion and the design of machine elements. Analysis of motion of linkages and mechanisms for displacement, velocity, and acceleration relationships. Design and analysis of weldments, fasteners, springs, power screws, couplings, shafts, clutches, gears and bearings.
3 Class Hours, 3 Laboratory Hours
Prerequisites: MET 235 Strength of Materials and CAD 200 Introduction to Computer Graphics

MET 241 Fluid Mechanics and Thermodynamics 3 Credits

FLUID MECHANICS: Fluid statics and dynamics, steady flow energy equations, laminar and turbulent flow viscosity and fluid friction, flow measurement.
THERMODYNAMICS: Perfect gas law, specific heats, property and energy relationships in non-flow and steady flow processes for gases, internal combustion engine cycles, nozzles and diffusers, gas turbines.
2 Class Hours, 3 Laboratory Hours
Prerequisites: MET 132 Applied Mechanics and CST 122 Scientific Computer Programming—FORTRAN

MET 244 Thermodynamics 3 Credits

Property and energy relationships in steady flow processes for vapors, power and refrigeration cycles, nozzles and diffusers. Heat transfer in plane and circular geometry, film coefficients, heat exchangers.
2 Class Hours, 3 Laboratory Hours
Prerequisite: MET 241 Fluid Mechanics and Thermodynamics

MET 246 Refrigeration and Air Conditioning 3 Credits

Energy transfer systems and controls used for cooling an environment below the temperature of its surroundings. Air and humidity calculations, heat transfer and transmission coefficients, heating loads, distribution systems, refrigeration systems, cooling load and air conditioning calculations, controls and control systems.
3 Class Hours
Prerequisite: MET 241 Fluid Mechanics and Thermodynamics

MET 248 Fluid Power 3 Credits

Static and dynamic fluid force systems used for both actuation and control of mechanical devices. Applications of frequently used fluid power components and circuits.
3 Class Hours
Prerequisite: MET 241 Fluid Mechanics and Thermodynamics

MET 252 Engineering Materials and Industrial Processes

4 Credits

Properties, applications and processing of engineering materials including metallic, non-metallic and composite materials.

3 Class Hours, 3 Laboratory Hours

Prerequisite: MET 121 Manufacturing Processes I and MET 235 Strength of Materials

***MET 253 Engineering Materials and Industrial Processes**

3 Credits

Properties, applications and processing of engineering materials including metallic, non-metallic and composite materials.

2 Class Hours, 2 Laboratory Hours

Prerequisite: MET 121 Manufacturing Processes I and MET 235 Strength of Materials

MET 261 Engineering Statistics and Quality Control

3 Credits

Measures of central tendency, variance, standard deviation, binomial distribution, normal distribution, statistical inference, hypothesis testing, confidence intervals, chi-square and students t-distribution, correlation and regression, similar elements of statistics as they pertain to engineering problems. Control chart analysis.

2 Class Hours, 2 Laboratory Hours

Prerequisite: MAT 141 Algebra and Trigonometry or MAT 139 Algebra

***MET 280 Management Decisions**

2 Credits

Objective criteria and evaluation in making management decisions. Currently accepted procedures to conceive management models and systems.

2 Class Hours

***MET 285 Time, Motion and Wage Study**

2 Credits

Analysis of time spent and methods used for industrial tasks. Relation to wage structure on individual and plant-wide basis.

2 Class Hours

Prerequisite: MAT 139 Algebra

***MET 286 Production Control**

2 Credits

Planning, scheduling and routing of goods through a plant from raw materials to finished products. Production control principles, the control of manufacturing processes.

2 Class Hours

Prerequisite: MAT 139 Algebra

MET 287 Plant Layout and Materials Handling

2 Credits

Plant arrangement as it influences industrial operations. Assembling data, coordinating operations, developing operational layouts, evaluative arrangements. Materials handling requirements, planning and evaluation.

2 Class Hours

Prerequisite: MAT 139 Algebra

MET 295 Seminar

1-3 Credits

An opportunity for the interested student to become involved with the process of research, formal paper preparation, formal delivery and defense of ideas presented. Also a critical evaluation of ideas set forth by others.

Prerequisite: As established by the Department Chairperson

MET 299 Independent Study

2-3 Credits

The student undertakes an independent project in his specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

Prerequisite: Approval of Department Chairperson

MEDICAL ASSISTANT

MDA 102 Medical Assisting Science

2 Credits

Introduction to the profession of medical assisting. Qualifications and duties, professional affiliation, history of medicine, ethics and professionalism, the role of the Medical Assistant. Interpersonal relations.

2 Class Hours

MDA 106 Medical Correspondence and Communications

2 Credits

Development of correspondence and communication skills. Fundamentals of machine-dictated and written medical reports and correspondence. Patient related communications, such as reception and telephone techniques, message taking and patient information skills. For Medical Assistant students.

2 Laboratory Hours

Prerequisites: MRT 105 Medical Terminology I and SEC 101 A and B Typewriting

MDA 114 Standard First Aid and Personal Safety; Management of Emergencies

1 Credit

The causes, care and prevention of accidental/emergency life-saving situations. Mastery level of learning for the proficiency of basic skills. Certification by American Red Cross. Recognizing, managing and aiding the physician in medical emergencies and maintaining emergency supplies.

2 Laboratory Hours

MDA 115 Medical Assisting Procedures I

4 Credits

Clinical procedures of medical assisting in the physician's office. Use and management of diagnostic instruments and equipment. Related patient care, professional ethics and nomenclature. For Medical Assistant students.

3 Class Hours, 2 Laboratory Hours

Prerequisite: MRT 105 Medical Terminology or consent of instructor

MDA 201 Medical Assisting Procedures III

4 Credits

Introduction to basic microbiology, hematology and urinalysis. Collection and preparation of blood, urine and body fluids for laboratory analysis. Significance of test results. For Medical Assistant students.

2 Class Hours, 4 Laboratory Hours

Prerequisite: BIO 132 Human Biology II

MDA 206 Medical Office Management

4 Credits

Medical office administrative procedures, such as accounting principles and practices, patient health records, insurance forms, banking and postal services, payroll records, patient fees and ledger cards, office machines. Mechanics of applicable medical correspondence including letters, manuscripts. Appointment scheduling, supplies and inventory. Emphasis on practical application of techniques. For Medical Assistant students.

3 Class Hours, 3 Laboratory Hours

Prerequisites: MDA 102 Medical Assisting Science and MDA 106 Medical Correspondence and Communications

MDA 208 Medical Law, Ethics and Economics

3 Credits

Emphasizes the medical ethics which set the standards of conduct for physicians, as well as guidelines for medical assistants. Requirements to practice medicine, legal liabilities of the profession, and the importance of medicolegal consent forms. Various types of medical practices, fee determination, health insurance programs, and systems of health care delivery.

3 Class Hours

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

MDA 210 Pharmacology

2 Credits

A practical course relevant to medical curriculums. Emphasizes knowledge of prescriptions and prescription writing. Basic principles of mathematics of pharmacy. Drugs governed by U.S.P. standards which are in common use and their generic-pharmaceutical relationship. Drug grouping and action relevant to human physiology. For Medical Assistant and Medical Record Technology students.

2 Class Hours

Prerequisite: BIO 132 Human Biology II

MDA 211 Medical Assisting Procedures II

4 Credits

Advanced technical procedures in medical assisting specifically oriented to the various medical specialties. Techniques of electrocardiography, audiometry and physical therapy. Field trips and practical experiences give additional background outside of the classroom. For Medical Assistant students. **(It is strongly recommended that this course be taken the semester prior to the MDA 245 Directed Practice.)**

2 Class Hours, 4 Laboratory Hours

Prerequisite: BIO 132 Human Biology II and MDA 115 Medical Assisting Procedures I

MDA 245 Directed Practice

5 Credits

Directed practical experience in physician's offices, medical centers, school health departments, rehabilitation clinics, and other health care institutions, weekly seminars. For Medical Assistant students who must have a 2.0 average to participate in the externship program.

1 Class Hour, 16 Laboratory Hours

Prerequisites: MDA 206 Medical Office Management and MDA 211 Medical Assisting Procedures

MDA 201 Medical Assisting Procedures and MDA 210 Pharmacology must be taken previously or concurrently

MEDICAL LABORATORY TECHNOLOGY

MLT 110 Introduction to Medical Laboratory Technology

1 Credit

Overview of the field of Medical Technology. Designed to acquaint the student with the six areas of a clinical laboratory and with the professional role of the technologist/technician in that setting. Discussions will include the variety of opportunities open to those entering the field.

1 Class Hour

MLT 201 Hematology and Coagulation

3 Credits

Comprehensive study of the hemopoietic and hemostatic systems. The normal physiology and classic pathology of both systems. Emphasis is on the mechanics and interpretation of routine and special test procedures.

3 Weeks: 2 Class Hours, 4 Laboratory Hours per day

Prerequisite: Freshman Year in Medical Laboratory Technology or approval of MLT advisor

MLT 210P Hematology and Coagulation Practicum

3 Credits

Clinical experience in the hematology laboratory of an affiliated hospital. Designed for observation and development of technical skills needed to perform in a hematology/coagulation laboratory.

3 Weeks: 30 Hours per week of practicum

Prerequisite: MLT 201 Hematology and Coagulation

MLT 202 Urinalysis/Body Fluids

1 Credit

Study of the physiological processes which result in the formation of urine and body fluids. Emphasis on analysis of fluids and interpretation of test results.

1 Week: 2 Class Hours, 4 Laboratory Hours per day

Prerequisite: Freshman Year of Medical Laboratory Technology or permission of MLT advisor

MLT 202P Urinalysis/Body Fluids Practicum

1 Credit

Clinical experience in the Urinalysis/Body Fluid area of an affiliated hospital. Designed to give students experience and competence in performing standard laboratory techniques.

1 Week: 40 Hours of practicum

Prerequisite: MLT 202 Urinalysis/Body Fluids

MLT 203 Microbiology

6 Credits

Survey of the microbial world, from taxonomy, morphology, and structure to metabolism, genetics, and growth characteristics of microbes. Emphasis in the latter part of course on the isolation and identification of medically important microbes.

5 Weeks: 3 Class Hours, 3 Laboratory Hours per day

Prerequisite: Freshman Year Medical Laboratory Technology or permission of MLT advisor

MLT 203P Microbiology Practicum

2 Credits

Clinical experience in the Microbiology area of an affiliated hospital. Students gain competence in diagnostic techniques used in the growth and identification of medically important microbes.

2 Weeks: 40 Hours per week

Prerequisite: MLT 203 Microbiology

MLT 204 Phlebotomy

1 Credit

Training and experience in the practice and performance of phlebotomy, teaching students to recognize and use blood collection equipment, isolation techniques and precautions, and perform procedures of routine venipuncture and skin puncture. Practical experience at affiliated hospitals.

8 Class Hours, 30 Practicum Hours

MLT 205 Immunology

4 Credits

Study of the mechanisms of immune response, including discussions of humoral and cell-mediated immunity, complement, phagocytosis, and the interaction of all systems. Immunodeficiency, autoimmunity, immune proliferation and immunopathology examined in relation and contrast to normal immune function. Laboratory sessions emphasize testing used to determine immune status and diagnose disease.

3 Weeks: 2 Class Hours, 4 Laboratory Hours per day, to include simulated experience

Prerequisite: Freshman Year of Medical Laboratory Technology or permission of MLT advisor

MLT 206 Immunohematology

2 Credits

Introduction to the field of blood banking. Theoretical knowledge of blood groups and blood grouping, component and transfusion therapies, transfusion reactions, and allo- and autoantibody formation. In laboratory sessions the student performs ABO and Rh grouping, antibody identification, and compatibility testing.

2 Weeks: 2 Class Hours, 4 Laboratory Hours per day

Prerequisite: Freshman Year in Medical Laboratory Technology or permission of MLT advisor

MLT 206P Immunohematology Practicum

2 Credits

Experience in the Blood Bank of an affiliated hospital. Students perform routine blood bank procedures.

2 Weeks: 35 Hours per week

Prerequisite: MLT 206 Immunohematology

MLT 207 Clinical Chemistry

5 Credits

Designed to cover the principles and analytical methods of clinical chemistry as performed in the Medical Laboratory. The relationship of physiochemical measurements of body function in health and disease including the renal, liver, digestive and respiratory systems. Emphasis on those chemical tests which evaluate the function of these systems related to metabolism, protein synthesis, pH, blood gases, electrolyte balance, enzymes and hormones. Laboratory work includes the theory, operation and maintenance of the specialized semi- and fully automated analytical instrumentation used to perform these chemical tests.

5 Weeks: 2 Class Hours, 4 Laboratory Hours per day

Prerequisite: Freshman Year in Medical Laboratory Technology or permission of MLT advisor

MLT 207P Clinical Chemistry Practicum

3 Credits

Clinical experience in the Chemistry and Special Chemistry areas of an affiliated hospital. Students practice methods learned in MLT 207 Clinical Chemistry to expand their technical skills into a broader range of equipment and more advanced instrumentation.

3 Weeks: 35 Hours per week

Prerequisite: MLT 207 Clinical Chemistry

MLT 299 Independent Study

1-4 Credits

Course content covering advanced work in Medical Laboratory Technology on which the instructor and student agree. The material is beyond the scope of an ordinary course and it must be approved by the department chairperson. Conducted under the direction of a faculty member.

Prerequisite: Department Approval

MEDICAL RECORD TECHNOLOGY

MRT 101 Medical Record Science I

2 Credits

Introduction to the history of medicine and the historical development of the health care field, with emphasis on the organizational structure of health institutions. Functions of a medical record department and overview of the professional association. Definition of, standards for, and development of a medical record as to content, format, evaluation and completion. A comprehensive review of the organization of the medical staff. Numbering and filing systems and methods. Storage and retrieval systems.

2 Class Hours

Corequisite: MRT 101L Medical Record Science I Laboratory

MRT 101L Medical Record Science I Laboratory

1 Credit

Practical application in the medical record laboratory of the principles described in the lecture mode of this course.

2 Laboratory Hours

Corequisite: MRT 101 Medical Record Science I

MRT 105 Medical Terminology I

2 Credits

Medical terminology as correlated with anatomical systems. Suffixes, prefixes, root words and use of the medical dictionaries. For Medical Assistant and Medical Record Technology students.

2 Class Hours

MRT 107 Medical Transcription

2 Credits

Designed to introduce the student to the knowledge and skills required for medical machine transcription in a health care facility. A practical experience in transcribing including proper format and a variety of medical reports.

4 Laboratory Hours

Prerequisite: MRT 105 Medical Terminology I

MRT 110 Medical Record Science II

2 Credits

A study of application of the Problem Oriented Medical Record System. Purpose of classifying diseases and operations, difference between an historical development of nomenclature and classification systems. Value and use of indexes and registers. In-depth study of ICD-9-CM coding principles. Introduction to the prospective payment plan utilizing DRGs. Other nomenclature and classification systems.

2 Class Hours

Prerequisite: MRT 101 Medical Record Science I and MRT 101L Medical Record Science I Laboratory

Corequisite: MRT 110L Medical Record Science Laboratory II

MRT 110L Medical Record Science II Laboratory

2 Credits

Actual practice of maintaining indexes for both manual and automated systems. Coding medical records.

4 Laboratory Hours

Corequisite: MRT 110 Medical Record Science II

MRT 115 Medical Terminology II

2 Credits

A continuation of MRT 105 Medical Terminology I. Emphasis on terminology associated with the integumentary, musculoskeletal, nervous, special senses, cardiovascular, digestive, respiratory, genito-urinary and endocrine systems.

2 Class Hours

Prerequisite: MRT 105 Medical Terminology I

MRT 144 Directed Practice

4 Credits

Directed summer practical experience in the hospital medical record department. Development of insight and skills into the basic medical record procedures. Graduation requirement.

40 Laboratory Hours per week for 4 Weeks

Prerequisite: MRT 110 Medical Record Science

MRT 202 Medical Record Science III

2 Credits

In-depth study of the Tumor Registry. In-depth treatment of basic hospital and vital statistics. A comprehensive review of the organization of the medical staff. Overview of accrediting agencies for health care facilities.

2 Class Hours

Prerequisites: MRT 110 Medical Record Science II, MRT 110L Medical Record Science II Laboratory and BIO 132 Human Biology II

Corequisite: MRT 202L Medical Record Science III Laboratory

MRT 202L Medical Record Science III Laboratory

1 Credit

Application of the principles learned in the lecture mode of this course.

2 Laboratory Hours

Corequisite: MRT 202 Medical Record Science III

MRT 208 Advanced Medical Transcription

2 Credits

Review of medical terminology emphasizing specialized terminology. Advanced medical transcription techniques through the use of recorded history and physical examinations, discharge summaries, consultation reports, operative reports and outpatient notes.

1 Class Hour, 2 Laboratory Hours

Prerequisite: MRT 107 Medical Transcription

MRT 210 Medical Record Science IV

2 Credits

Principles of management and the role of the supervisor in the medical record department. Developmental and operational phase of health information systems. Trends in health care delivery systems. Overview of ambulatory care, long term care and psychiatric facilities. Introduction to Problem Oriented Medical Record System.

2 Class Hours

Prerequisites: MRT 202 Medical Record Science III and MRT 202L Medical Record Science III Laboratory

Corequisite: MRT 210L Medical Record Science IV Laboratory

MRT 210L Medical Record Science IV Laboratory 1 Credit

Practical application of the principles described in the lecture mode of this course.

2 Laboratory Hours

Corequisite: MRT 210 Medical Record Science IV

MRT 216 Clinical Practicum 1 Credit

Enables the students to utilize the knowledge and skills obtained in the classroom and directed practice assignments. Students perform the functions of an actual medical record department and use the computer terminal, microfilm equipment and medical transcription word processing center.

2 Laboratory Hours

Prerequisites: MRT 110 Medical Record Science and MRT 144 Directed Practice

MRT 222 Medical Legal Aspects 3 Credits

Introduction to legal aspects of medical records. Legal basis for medical practice, confidentiality. Patient's "Bill of Rights," voluntary and involuntary release of medical information. Authorizations and consents, professional liabilities, medical legal issues such as abortion, euthanasia, sterilization, artificial insemination.

3 Class Hours

Prerequisite: MRT 202 Medical Record Science

MRT 236 Quality Assurance 2 Credits

Three components of medical care evaluation—admission, concurrent review and retrospective review of patient records, audited by the medical record technician. Federal and state regulations.

1 Class Hour, 2 Laboratory Hours

Prerequisite: MRT 110 Medical Record Science

MRT 245 Directed Practice 4 Credits

Directed practice experience in the hospital and related affiliation sites. Correlated with MRT 210 Medical Record Science to develop insight and skills into advanced medical record procedures.

16 Laboratory Hours

Prerequisites: MRT 202 Medical Record Science and MRT 144 Directed Practice

MRT 295 Medical Record Seminar 2 Credits

Detailed study and analysis of specific problems encountered in the administration of a medical record department. Correlated with directed clinical practice. Case study and extensive literature review.

2 Class Hours

MUSIC

MUS 101 Fine Arts: Introduction to Music 3 Credits

A survey course examining the music of the great composers representing each major period of Music History. How to listen to different forms of music such as symphonies, concertos, opera and jazz will be included in the topics covered. Emphasis on developing listening skills to bring the student to an informed awareness and understanding of great music.

3 Class Hours

MUS 105 Music Theory I 3 Credits

A beginning course in music theory, including basic rudiments of music. Pitch and rhythmic notation, scales and intervals. Ear training through melodic and rhythmic drills and dictation.

3 Class Hours

MUS 106 Music Theory II 3 Credits

Continuation of Music Theory I. Traditional harmony, exercises in melodic, rhythmic and harmonic dictation, aural analysis, beginning composition.

3 Class Hours

Prerequisite: MUS 105 Music Theory I or consent of instructor

MUS 110 17th and 18th Century Music 3 Credits

Music and musical styles of the 17th and 18th Centuries. Emphasis on the composers and their styles and the relationship of music to the social, political and other cultural reforms of the period. (Not offered in 1985-86 academic year.)

3 Class Hours

Prerequisite: MUS 101 Introduction to Music or consent of instructor

MUS 111 19th Century Music 3 Credits

Important musicians and musical styles of the Romantic Period. Emphasis on developments in piano literature, the symphony orchestra and opera. Listening to selected recordings and attendance at local concerts. (Not offered in 1985-86 academic year.)

3 Class Hours

Prerequisite: MUS 101 Introduction to Music or consent of instructor

MUS 112 20th Century Music 3 Credits

Important musicians and musical styles in the 20th Century. Emphasis on the trends and development of music in America. Leading European composers. (Not offered in 1985-86 academic year.)

3 Class Hours

Prerequisite: MUS 101 Introduction to Music or consent of instructor

MUS 180 Jazz Improvisation 2 Credits

Basic concepts of soloing in the jazz idiom for instrumentalists. Teach students to interpret chord symbols and understand the sounds that they represent in a meaningful way to create a jazz solo with their instrument. Attendance at jazz concerts required.

4 Studio Hours

Prerequisite: MUS 105 Music Theory I or permission of instructor

MUS 185 Beginning Guitar 1 Credit

Provides any student the opportunity to learn chords and play written musical notes on guitar. Emphasis on music fundamentals, scales, chords, reading rhythms and learning to accompany singers. Students must have their own instruments.

2 Studio Hours

MUS 189 Practical Music Theory for the Performing Musician 2 Credits

Designed to help the novice performer of music understand key signatures, scales, rhythms, chords, form, intervals, notation and sight reading. Emphasis on fundamentals of music and practical application of what is learned.

2 Class Hours

MUS 190 The College Choir 1 Credit

Students who sing in the College Choir receive one credit per semester. See page 31.

MUS 191 Music Performance 1 Credit

Students who participate in the recitals or concerts of the academically-associated Broome Community College Music Performance groups receive one credit per semester.

MUS 192 Woodwind Ensemble 1 Credit**MUS 193 Brass Ensemble 1 Credit****MUS 194 Voice Class 1 Credit**

MUS 195 Jazz Ensemble **1 Credit**

By audition only

MUS 196 String Ensemble **1 Credit**

(Not for guitarists)

MUS 197 Applied Music I **1 Credit**

For students in their first semester. To enable instrumental and vocal students to study privately with a teacher and develop their musical performance abilities. Not a course for beginners. A minimum of 15 lessons required per semester. Cost of lessons not included in BCC tuition.
2 Studio Hours

MUS 198 Applied Music II **1 Credit**

Continuation of MUS 197 Applied Music I, for second semester students. A minimum of 15 lessons required per semester and continued musical growth and maturity in solo and ensemble performance is expected. Cost of lessons not included in BCC tuition.

2 Studio Hours

Prerequisite: MUS 197 Applied Music I

MUS 297 Applied Music III **1 Credit**

Continuation of MUS 198 Applied Music II, for third semester students.

2 Studio Hours

Prerequisite: MUS 198 Applied Music II

MUS 298 Applied Music IV **1 Credit**

Continuation of MUS 297 Applied Music III, for fourth semester students.

2 Studio Hours

Prerequisite: MUS 297 Applied Music III

MUS 299 Independent Study: Music **1-3 Credits**

An individual student project concerned with advanced work in a specific area of music. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 semester hours of college level work in music

NURSING

ADN 100 Meeting Basic Human Needs **7 Credits**

Introduction to nursing concepts and principles. The total human being incorporating biophysiological and psychosocial components. Emphasis on maintaining homeostasis within the illness/wellness continuum. The needs approach, based on Maslow's Hierarchy of Human Needs, is emphasized. Skills in providing safe bedside nursing care, such as simple treatments, pharmacology and basic nutrition. Integrating knowledge of communication skills, nursing process, problems solving, mental mechanisms, normal responses to stress, crisis intervention, body responses to pathology. Adaptation of nursing intervention directed toward meeting basic needs of the chronically ill, the aging and those individuals facing death.

5 Class Hours, 6 Laboratory Hours

ADN 101 Nursing Care During the Life Cycle **7 Credits**

The Life Cycle from conception to middle-age. Correlating basic human needs and the developmental tasks in each age group. The family cycle, as one of the tasks of the young adult. Emphasis on preparation for parenthood, the experience of parenthood, and the psychosocial implications of the young family. Learning principles identified and incorporated into the nursing process. Situational and maturational crises as normal aspects of the life cycle. Adaptation of nursing intervention directed toward meeting basic needs of the middle aged. Nursing intervention for diagnostic testing.

5 Class Hours, 6 Laboratory Hours

Prerequisite: ADN 100 Meeting Basic Human Needs

ADN 203 Immobility Concepts **4 Credits**

The nursing process as it meets the needs of individuals experiencing complex physiological and psychological problems due to immobility. Concepts of neurological, orthopedic and sensory deprivation nursing. Extended campus laboratory experiences are correlated with class content. Successful achievement in the extended campus laboratory is required.

3 Class Hours, 4½ Laboratory Hours

Prerequisites: ADN 101 Nursing Care During Life Cycle and BIO 132 Human Biology II

ADN 204 Regulatory Concepts **4 Credits**

The nursing process is applied to the needs of individuals with disturbances of the regulatory physiological mechanisms. Content includes nursing concepts of stress, fluids and electrolytes, endocrinology. Related health behavior and teaching. Extended campus laboratory experience is correlated. Successful achievement in the extended laboratory is required.

3 Class Hours, 4½ Laboratory Hours

Prerequisites: ADN 101 Nursing Care During Life Cycle and BIO 132 Human Biology II

ADN 205 Psychological Concepts I **2 Credits**

The nursing process as it meets the needs of individuals experiencing psychological stress. Psychiatric nursing concepts applied to behavioral disturbances. Extended campus laboratory experiences are correlated with class content. Successful achievement in the extended campus laboratory is required.

1 Class Hour, 3 Clinical Hours

Prerequisites: ADN 101 Nursing Care During Life Cycle and BIO 132 Human Biology II

ADN 206 I, I and O Concepts **4 Credits**

The nursing process as it meets the needs of individuals with complex physiological and/or psychological stress due to problems of inflammation, infection and obstruction. Extended campus laboratory experiences are correlated with class content. Successful achievement in the extended campus laboratory is required.

3 Class Hours, 4½ Clinical Hours

Prerequisites: ADN 101 Nursing Care During Life Cycle, ADN 203 Immobility Concepts, ADN 204 Regulatory Concepts, ADN 205 Psychological Concepts I, BIO 132 Human Biology II and BIO 150 Microbiology

ADN 207 Oxygenation Concepts **4 Credits**

The nursing process is applied to needs of individuals experiencing disturbances of oxygenation. Broad concepts applied to problems of the hemopoietic, respiratory, vascular and cardiac systems. Extended campus laboratory experiences are correlated with class content. Successful achievement in the extended campus laboratory is required.

3 Class Hours, 4½ Clinical Hours

Prerequisites: ADN 101 Nursing Care During Life Cycle, ADN 203 Immobility Concepts, ADN 204 Regulatory Concepts, ADN 205 Psychological Concepts I, BIO 132 Human Biology II and BIO 150 Microbiology

ADN 208 Psychological Concepts II **2 Credits**

Continued application of the nursing process as it meets the needs of individuals experiencing psychological stress. Content includes psychiatric contents applied to behavioral changes. Extended campus laboratory experiences are correlated with class content. Successful achievement in the extended campus laboratory is required.

1 Class Hour, 3 Laboratory Hours

Prerequisites: ADN 101 Nursing Care During the Life Cycle, ADN 203 Immobility Concepts, ADN 204 Regulatory Concepts, ADN 205 Psychological Concepts I and BIO 132 Human Biology II

ADN 296 Nursing Seminar I **1 Credit**

Seminar discussions and role playing exercises explore, in detail, decision making, values clarification and the setting of priorities within the context of clinical nursing situations. Emphasis on clinical accountability and management of multiple patient care situations.

2 Seminar Hours

Prerequisite: Successful completion of all previous program requirements

ADN 297 Nursing Seminar II**1 Credit**

A broad survey course examining the effects of a changing society upon the delivery of health care. Licensure and nursing practice issues. The National League for Nursing achievement tests used as a guide for the individuals' preparation for licensure.

2 Seminar Hours

Prerequisite: Successful completion of all previous program requirements

ADN 298 Nursing Seminar III**0 Credits**

For those Nursing students who have transferred into the curriculum from other nursing programs, have passed the College's advanced-placement exam in nursing, or have not attended college for at least one year. Seminar discussions and role playing exercises designed to facilitate the student's adaptation to the role of the Associate Degree Nurse. Emphasis on problem solving, setting of priorities and utilization of the Nursing process in their daily activities

1 Class Hour

OFFICE TECHNOLOGIES

Note—Students who fail a skill course twice will not be allowed to register a third time without taking a full semester away from the course and completing the Counseling Center tests.

SEC 101A Typewriting**1 Credit**

Introduction to the electric typewriter keyboard and machine operations. Development of basic skill building in typing exact copy by touch or 3 minutes with a maximum of 3 errors.

2 Class Hours, 3 Laboratory Hours, 5-Week Course

Prerequisite: For international students, English as a Second Language or permission of instructor

SEC 101B Typewriting**1 Credit**

Continuation of skill building with emphasis on pacing and rhythm drills. Development of speed and accuracy in typing exact copy by touch for 5 minutes with a maximum of 5 errors.

2 Class Hours, 3 Laboratory Hours, 5-Week Course

Prerequisite: SEC 101A Typewriting or equivalent

SEC 101C Typewriting**1 Credit**

Development of basic techniques in preparing typewritten letters, horizontal and vertical centering exercises, memorandums, tabulations, outlines, manuscripts.

2 Class Hours, 3 Laboratory Hours, 5-Week Course

Prerequisite: SEC 101B Typewriting or equivalent

Note—SEC 102A, 102B and 102C Typewriting (below) were formerly combined in SEC 102 Typewriting, which is no longer offered.

SEC 102A Typewriting**1 Credit**

Advanced skill building with emphasis on pacing and rhythm drills. Development of speed and accuracy in typing exact copy by touch for 5 minutes with a maximum of 5 errors.

2 Class Hours, 3 Laboratory Hours, 5-Week Course

Prerequisite: SEC 101C Typewriting, ability to type without looking at keys and a 5-minute timing at 41 net words per minute with 5-error maximum

SEC 102B Typewriting**1 Credit**

Development of advanced techniques in typing different styles of business letters, manuscripts, memorandums.

2 Class Hours, 3 Laboratory Hours, 5-Week Course

Prerequisite: SEC 102A Typewriting or equivalent

SEC 102C Typewriting**1 Credit**

Development of advanced techniques in typing different styles of tabulations, financial statements and business forms.

2 Class Hours, 3 Laboratory Hours, 5-Week Course

Prerequisite: SEC 102A Typewriting or equivalent

SEC 109 Basic Transcription**3 Credits**

Designed to improve understanding of basic sentence structure, grammar, business vocabulary and punctuation as related to the business world. Practical application through exercises at the typewriter on rough draft copy.

3 Class Hours

Prerequisite: SEC 101 A, B or equivalent or concurrent enrollment in SEC 101 A, B

SEC 110 Shorthand**3 Credits**

Beginning course in Gregg Shorthand, Series 90 System. Basic principles to promote the ability to read fluently from plates and notes. Longhand and typewritten transcription from shorthand notes dictated from unfamiliar material at minimum rate of 60 words a minute.

2 Class Hours, 3 Laboratory Hours

Prerequisite: SEC 101 A, B and C Typewriting or equivalent or concurrent enrollment in SEC 101 A, B and C Typewriting

SEC 111 Shorthand and Transcription**3 Credits**

Development of a minimum rate of 70 words per minute shorthand speed, dictated from unfamiliar material, with efficient transcription techniques to produce typewritten mailable transcripts. Emphasis on shorthand speed building while integrating the correct usage of principles of grammar, spelling, punctuation, capitalization, vocabulary, numbers, word division, words often confused.

2 Class Hours, 3 Laboratory Hours

Prerequisites: SEC 110 Shorthand or equivalent and SEC 101 A, B and C Typewriting or equivalent and SEC 109 Basic Transcription or concurrent enrollment

SEC 130 Freshman Orientation**½ Credit**

Introduction to the College and departmental policies and procedures. Discussions pertaining to the Department of Office Technologies options and career paths. A review of the College's services available for students.

1 Class Hour Bi-weekly

SEC 151 Business Communications**3 Credits**

Development of desirable written and oral communication style. Review of basic writing mechanics. Composition of letters of inquiry and reply, claim and adjustment, credit and collection, sales and promotion, application. Memorandums, news releases, short reports, telegrams.

3 Class Hours

Prerequisites: SEC 101 A, B and C Typewriting or equivalent and SEC 109 Basic Transcription

SEC 211 Advanced Typewriting**3 Credits**

Training in advanced typewriting techniques. Emphasis on preparing documents for law, insurance, real estate, banking and technical fields. Continuation of speed building.

2 Class Hours, 2 Laboratory Hours

Prerequisites: SEC 102 A, B and C Typewriting

SEC 230 Advanced Shorthand**3 Credits**

Emphasis on increasing shorthand speeds and improving production of mailable typewritten transcripts through an increased knowledge of basic information and vocabulary from such topics as finance, law, information processing and environmental sciences. Transcription at the typewriter from notes dictated from unfamiliar material at a minimum of 80 words per minute.

2 Class Hours, 3 Laboratory Hours

Prerequisites: SEC 111 Shorthand and Transcription and SEC 102 A, B, C Typewriting

SEC 235 Executive Machine Transcription **1 Credit**

Practical experience in the use of transcribing equipment. Students are expected to apply correct usage of principles of grammar, punctuation and spelling, as well as develop increasing skill in transcribing business communications.
1 Class Hour, 4 Laboratory Hours, 5-Week Course
Prerequisites: SEC 111 Shorthand and Transcription and SEC 102 A, B, C Typewriting

SEC 236 Machine Transcription **3 Credits**

Emphasis on increasing skill in transcribing recorded materials. Continuing development of knowledge of business vocabulary, correct usage of principles of grammar, punctuation, spelling in the machine transcription of business documents.
2 Class Hours, 2 Laboratory Hours
Prerequisites: SEC 102 A and B Typewriting and SEC 109 Basic Transcription

SEC 237 Text Editing I **1 Credit**

An opportunity to develop basic word processing skills. Students create, edit, print and file documents. Hands-on experience as well as theory applied to machine operations.
1 Class Hour, 4 Laboratory Hours, 5-Week Course
Prerequisite: SEC 102 A, B, C Typewriting

SEC 238 Text Editing II **1 Credit**

A continuation of SEC 237 Text Editing I. Students develop additional text editing skills while learning advanced functions, such as adjusting page lengths, moving text, advanced formatting functions, printing documents while typewriting, creating dual columns, merging documents. The refinement of these skills to be ascertained as students produce documents and complete relevant projects.
1 Class Hour, 4 Laboratory Hours, 5-Week Course
Prerequisite: SEC 237 Text Editing I

SEC 239 Text Editing III **1 Credit**

A refinement of text editing skills for the word processing major. Students should learn document management and security, loop operations, equations, list processing and the calculator mode. Students should develop input/output text editing skills associated with all previously acquired machine functions. They will create, edit and revise complicated document including manuscripts and statistical reports and tables.
1 Class Hour, 4 Laboratory Hours, 5-Week Course
Prerequisite: SEC 238 Text Editing II

SEC 241 Word Processing Concepts **3 Credits**

A study of terminology, concepts and procedures utilized in producing written communications at top speed, with the greatest accuracy, the best effort, and the lowest cost. Students to develop an understanding of current office procedures in organizing and implementing a word processing/administrative support operation.
3 Class Hours
Prerequisites: SEC 102 A, B, C Typewriting and SEC 151 Business Communications

SEC 242 Office Procedures **3 Credits**

Final preparation for an office career. Business activities related to word processing, postal and shipping services, telephone procedures, travel arrangements, planning meetings, banking services, application of filing procedures.
3 Class Hours
Prerequisites: For Office Services Assistant students—SEC 151 Business Communications, SEC 236 Machine Transcription, SEC 238 Text Editing II and SEC 243 Records Management. For Executive Secretarial students—SEC 151 Business Communications, SEC 230 Advanced Shorthand, SEC 238 Text Editing II and SEC 243 Records Management

Note—This is a capstone course and must be taken during the student's final semester.

SEC 243 Records Management **1 Credit**

A study of classification systems including alphabetic, subject, numeric, and geographic methods. In addition, students study the development of information management programs including the record management process, procedures for controlling information, and micrographic and automation processes.
3 Class Hours, 5-Week Course

SEC 246 Office Machines **3 Credits**

Practical experience in the operation of typewriters, calculators, mimeo and spirit duplicators, transcribing and dictating equipment.
2 Class Hours, 3 Laboratory Hours
Prerequisites: SEC 109 Basic Transcription and SEC 101 A, B and C Typewriting
Corequisite: SEC 248 General Office Procedures

SEC 248 General Office Procedures **3 Credits**

Analysis of the basic tasks performed by the office employee. How to apply for and secure the office position. Filing systems and procedures, telephone and telegram services, postal information, office supplies and equipment.
3 Class Hours
Prerequisites: SEC 109 Basic Transcription and SEC 101 A, B and C Typewriting and/or concurrent enrollment in SEC 102 A, B and C Typewriting or concurrent enrollment in SEC 101 C Typewriting
Corequisite: SEC 246 Office Machines

SEC 250 Office Administration **3 Credits**

A study of the problems and scope of management in general. Students given a thorough understanding of operative management. Students should understand the need to simplify, coordinate, and mechanize office operations. An understanding of the objectives, policies and procedures of specific departments are studied.
3 Class Hours
Note—This is a capstone course and must be taken during the student's final semester

**SEC 260 Directed Secretarial Experience—
Model Office** **2 Credits**

Secretarial students are required to work at least four hours weekly in the model office to gain practical working knowledge by producing various types of campus communications.
4 Laboratory Hours

Note—This is a capstone course and must be taken during the student's final semester, with the exception of those students eligible for advanced placement.

SEC 270 Internship **2 Credits**

Career-related employment in a major industry that complements academic preparation in the Office Technologies area. Interns train and work on state-of-the-art information processing equipment and receive on-the-job experience in a variety of office procedures. Interns meet with the coordinator as scheduled.
Prerequisite: Departmental approval

SEC 299 Independent Study **1-4 Credits**

Advanced investigation or research in an individual student's major field of study. Under the guidance of a faculty member, the independent study concerns material beyond the scope and depth of the ordinary course offering. Only one independent study course is allowed per semester.
Prerequisite: Approval of faculty members and department chairperson

PARALEGAL ASSISTANT

All Paralegal Assistant courses are taught in the evening only

***PLA 110 Survey of Paralegalism 3 Credits**

Role of the paralegal and attorney. Introduction to jurisprudence and functions of administrative agencies. Local, state, federal courts. Introduction to contracts, torts, negligence, criminal procedure, real property law, law office management. Legal terminology.

3 Class Hours

***PLA 120 Advanced Paralegalism 3 Credits**

Continuation of law office management. Introduction to research techniques, family law, surrogate, wills and estates, agency and partnership, bankruptcy, corporate law, commercial paper, workman's compensation with procedures and practices of each. Legal terminology.

3 Class Hours

Prerequisite: PLA 110 Survey of Paralegalism

***PLA 200 Real Property Law 3 Credits**

Comprehensive survey of law of real property emphasizing practical application to a paralegal function. Analysis of forms of deeds, bonds, notes, mortgages, assignments, discharges, purchase of contracts, leases, options. Training in searching title, basic understanding of abstracts of title, real property litigation, estates, condemnation and foreclosure.

3 Class Hours

Prerequisite: PLA 110 Survey of Paralegalism or permission of department

***PLA 205 Techniques of Research 3 Credits**

Development of research skills through the use of digests, encyclopedias, reporter systems and practice manuals. Arrangement, use and maintenance of a law library (including the Supreme Court Library). All legal references, for assistance in diverse phases of law and the operation of those agencies and institutions.

3 Class Hours

Prerequisite: PLA 110 Survey of Paralegalism or 2 years experience in a law office

***PLA 210 Legal Drafting 3 Credits**

Analysis of legal documents for writing style, clarity of meaning, conciseness, various types of composition of formal and informal letter writing, memos, reports. Refinement of basic communication skills.

3 Class Hours

Prerequisites: ENG 110 Written Expression I and PLA 205 Techniques of Research

***PLA 215 Estates, Probates and Trusts 3 Credits**

Disposition of decedent's property, law of intestate succession, execution and probate of wills, nature and creation of trusts and the administration of estates and trusts, estate and gift tax preparation.

3 Class Hours

Prerequisite: PLA 110 Survey of Paralegalism or permission of department

***PLA 220 Contracts 3 Credits**

The law of contracts, their historical significance, formation, validity, interpretation, transfer of contractual rights. Assignment, third party beneficiaries, discharge, breach and remedies. (BUS 118 Business Law I may be substituted.)

3 Class Hours

***PLA 222 Medical Law 3 Credits**

General coverage of how legal and medical issues are inter-related, including right to treatment, organ transplant, right to die, abortion issues, medical malpractice, informed consent, insanity defense, surrogate mothers. Lecture and discussion. How these topics affect the role of the attorney and paralegal in servicing client needs.

3 Class Hours

***PLA 225 Family Law 3 Credits**

Pleadings relative to general practice of law in relationship to the family unit. Laws relating to marriage, divorce, annulment, custody and support, adoption, name change, guardianship, paternity. Written pleadings and necessary research pertaining to these aspects of family law.

3 Class Hours

***PLA 226 Taxation Law for Paralegals 3 Credits**

Principles of federal taxation, analysis of IRS code and related case law, emphasis on law and concepts of taxation, basic and advanced tax law terminology, litigation involving the IRS. Exploration of social changes and factors involving tax problems, current issues in tax reform, perspective of the paralegal regarding resolution of tax disputes.

3 Class Hours

***PLA 240 Corporate Law 1 Credit**

Types, uses and organization of the corporation, antitrust and securities law, mergers and consolidation, liquidation and dissolution.

1 Class Hour

***PLA 250 Municipal Law 1 Credit**

Structure and operations of local government in New York State. Evolution of local government in New York during the first two centuries of its existence. Laws, ordinances and operations.

1 Class Hour

***PLA 260 Labor-Management Relations (Labor Law) 1 Credit**

Labor-management relations in the public and private sectors. Taft-Hartley Act, National Labor Relations Act and Wagner Act, unfair labor practices, labor contracts, arbitration and mediation, availability of injunctions in labor disputes.

1 Class Hour

***PLA 270 Vehicle and Traffic Law 1 Credit**

Regulations of traffic within the State of New York. Emphasis on violations and traffic-related misdemeanors resulting from violation of the rules of the road and court proceedings resulting therefrom.

1 Class Hour

***PLA 280 Litigation and Trial Preparation 1 Credit**

Intake procedures, systems and analysis, concepts of jurisdiction and venue, parties to an action, pleadings, pre-trial procedures, motions and special practice, special proceedings, trials, judgments and appeals.

1 Class Hour

***PLA 290 Landlord-Tenant Relations 1 Credit**

Problems faced by landlords and tenants, private housing, live-in arrangements, covenants, leases, warranties. Tenant and landlord rights and obligations.

1 Class Hour

***PLA 299 Independent Study: Paralegal 1-3 Credits**

An individual student project in paralegal studies which is beyond the scope or requirements of the courses offered by the program. Conducted under the direction of a faculty member or attorney, and approved by the program coordinator.

Prerequisites: PLA 110 Survey of Paralegalism plus three additional hours in a 200 level PLA course

***TAUGHT EVENINGS ONLY AND WHEN ENROLLMENT PERMITS**

PHILOSOPHY

PHI 102 General Philosophy

3 Credits

Meaning of philosophy, suggestions for reading philosophy, informal logic, methodology and basic philosophical terms including idealism, dualism, naturalism.

3 Class Hours

PHI 103 Philosophy of Mind

3 Credits

Introduction to metaphysical philosophy. Examination of the major views of reality: dualism, materialism, idealism. Analysis and discussion of evidence and arguments relating to issues such as "mind," immortality, free will vs. determinism, and the existence of God.

3 Class Hours

PHI 104 Philosophy of Religion

3 Credits

Relation of religion and philosophy and an investigation of different concepts of God. Analysis of religious types and experiences, different attempts to justify religious beliefs. Investigation of the logic of religious experience through an analysis of the leading ideas in the philosophy of religion both as an historical and contemporary phenomenon.

3 Class Hours

PHI 111 Humanities

3 Credits

Critical analysis of human development from the early beginnings to the present state through a thematic investigation of literature, philosophy, history and the arts. Classical, Medieval, Renaissance and Metaphysical Periods.

3 Class Hours

PHI 112 Humanities

3 Credits

Critical analysis of human development from the early beginnings to the present state through a thematic investigation of literature, philosophy, history and the arts. Neoclassical, Romantic, Victorian, Early Modern and Late Modern Periods.

3 Class Hours

PHI 120 Verbal Reasoning

3 Credits

To improve the student's ability in reasoning. Concentration on qualification, symbols, ambiguity, analysis and semantics.

3 Class Hours

PHI 201 Ethics: Moral Philosophy

3 Credits

Main classical and modern ethical theories, including such theorists as Plato, Aristotle, Spinoza, Mill, Kant, Moore, Toulmin, Ayer, Westermarck. Comparison and contrast of normative and meta-ethical theories, the good life and how one should act, the meaning of moral judgments and the criteria of validity, justification or moral beliefs and the grounds of moral responsibility.

3 Class Hours

PHI 202 Logic

3 Credits

Analysis and practical application of the elements of logic as they apply to thinking on both a linguistic and formal level. Forms of argument, informal and formal fallacies, significance of the emotions on decision making, inductive and deductive processes. Symbolizing arguments and formal proofs of validity.

3 Class Hours

Prerequisite: Any Philosophy (PHI) course or any Mathematics (MAT) course numbered MAT 139 or higher

PHI 203 Philosophical Issues in American Education

3 Credits

Philosophy of selected American educators, with attention on the historical development of the American educational system. Brief review of educational outlooks from antiquity to the present, including Plato, Aristotle, Rousseau. Analysis of educational issues and of key terms in education from philosophical perspective. Nature of the individual, the school and society and the underlying philosophical interrelations that may exist.

3 Class Hours

PHI 206 Social and Political Philosophy

3 Credits

A philosophical study of the social/political organization of society through an examination of such topics as justice, authority, leadership, individual rights, and of the relationship between the state and various social institutions, such as family, business, church, and education.

3 Class Hours

PHI 299 Independent Study: Philosophy

1-3 Credits

An individual student project concerned with advanced work in a specific area of philosophy. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 semester hours of college level work in philosophy

PHYSICAL EDUCATION

Practically all of the Physical Education courses are half a semester in length. For the most part, the courses that take place outdoors are given in the first half of the fall semester or the second half of the spring semester; those courses that occur indoors are given in the second half of the fall semester or the first half of the spring semester.

NOTE—Students taking Physical Education courses should have a Health Questionnaire on file with the college Health Service (Wales Building, Room 104). Forms are available in the Health Service upon request.

PED 100 Archery

½ Credit

Fundamentals of shooting—seven-step approach. Proper target shooting technique and form stressed.

4 Class Hours, 11 Laboratory Hours per half semester

PED 103 Backpacking

1 Credit

A series of laboratories and lectures culminating in a four-day mandatory backpacking trip. Students learn to select, care for, and use properly the essential equipment, as well as some low cost alternatives to expensive items. The stress is on safety and low ecological impact camping.

15 Class Hours, 15 Laboratory Hours per half semester

PED 106 Badminton

½ Credit

Instruction and practice in the various strokes. Rules, terminology and equipment. Strategy for singles and doubles.

4 Class Hours, 11 Laboratory Hours per half semester

PED 109 Basketball

½ Credit

Instruction and practice in the fundamental skills of passing, dribbling, shooting and defense. History, rules, and team play. Basketball as a carry-over sport. (Not offered in 1985-86 academic year.)

4 Class Hours, 11 Laboratory Hours per half semester

PED 112 Bowling

½ Credit

Bowling fundamentals including ball selection, grip, stance, approach and delivery. Etiquette, scoring, correction of basic mistakes in delivery. Classes are at off-campus site and students must pay for own games, shoe rental and transportation.

3 Class Hours, 12 Laboratory Hours per half semester

PED 115 Physical Conditioning I**½ Credit**

A general physical conditioning class. Each student is pre-tested and then establishes his/her individual program. A selected battery of exercises (circuit) is utilized with some individual choice. (Formerly entitled Circuit Training and Conditioning.)

3 Class Hours, 12 Laboratory Hours per half semester

PED 116 Physical Conditioning II**1 Credit**

General overall physical conditioning with major emphasis on cardiovascular fitness. Combines indoor and outdoor workouts on alternate days. Class meets three times per week for 10 weeks.

8 Class Hours, 22 Laboratory Hours per semester

PED 118 Field Hockey**½ Credit**

Basic skills needed for good competition in game situations. Emphasis on rules and responsibilities of each position on the team. Organized competition within the class. (Not offered in 1985-86 academic year.)

4 Class Hours, 11 Laboratory Hours per half semester

PED 121 Golf**½ Credit**

Skills, rules etiquette and strategy. Students required to play nine holes and hit at a driving range, providing their own transportation and fees. Clubs provided for those without.

4 Class Hours, 11 Laboratory Hours per half semester.

PED 122 Horsemanship**1 Credit**

Basics of grooming, saddling and safety procedures. Development and expansion of riding skills. Elementary knowledge of horses, their care and maintenance. Two options available: 1. English. 2. Western. (Additional fee and taught off campus.)

8 Class Hours, 22 Laboratory Hours per semester

PED 127 Jogging**½ Credit**

Jogging as a possible leisure time activity. Physiological and psychological benefits, improvement of technique and basic principles of training. Individual works at own level and sets own goals. Distance usually worked: 2 miles.

3 Class Hours, 12 Laboratory Hours per semester

PED 130 Karate**1 Credit**

Classical karate on the beginning and intermediate levels. Philosophy and brief history of karate. Basic katas (forms) together with pre-arranged sparring techniques. Free sparring with no body contact. Emphasis on physical conditioning and mental discipline.

8 Class Hours, 22 Laboratory Hours per semester

PED 132 Concepts in Physical Education**2 Credits**

Emphasis on the basic knowledge, understanding and values of physical education. To help students make important decisions about their own personal fitness.

30 Class Hours per semester

PED 139 Self Defense**½ Credit**

Brief explanation of karate, judo and other martial arts. Approximately 10 basic self-defense movements which, if properly acquired and practiced, can be applicable to many situations. Basic techniques of throwing, blocking, falling, punching and general body shifting motions. No definite dress required. A student should remember that exercises are meant to increase flexibility and endurance of muscles, and the dress should be a comfortable one for this purpose. Although this is not the formal karate class, the class will be conducted with formality and discipline.

3 Class Hours, 12 Laboratory Hours per semester

PED 142 Skiing**½ Credit**

Instruction and practice in all phases of skiing (beginning through advanced). Conduct, terminology, safety and equipment. Basic racing technique demonstrated and practiced where sufficient skill level and interest are indicated. Classes at an off-campus site; students must pay necessary fee and provide their own transportation.

3 Class Hours, 12 Laboratory Hours per half semester

PED 143 Cross-Country Skiing**½ Credit**

Instruction and practice in cross-country skiing—beginning through advanced. Conduct, terminology, safety and equipment. Classes both on and off campus. Skis, poles, bindings provided; students responsible for boots and transportation. (Formerly entitled Ski Touring.)

3 Class Hours, 12 Laboratory Hours per half semester

PED 145 Aerobics**1 Credit**

Movement and exercise done with music to achieve cardiovascular fitness, improve muscle tone, develop body awareness, increase energy and help one to feel good about oneself.

8 Class Hours, 22 Laboratory Hours per half semester

PED 147 Soccer (Women)**½ Credit****PED 148 Soccer (Men)****½ Credit**

Instruction and practice in the fundamental skills of kicking, tackling, trapping, dribbling and heading. Rules and tactics. Team competition. Separate sections for men and women.

4 Class Hours, 11 Laboratory Hours per half semester

PED 154 Speedball**½ Credit**

A combination team sport involving skills common to soccer, basketball and football. Development of skills, rules and strategy of the game. Speedball is a fast moving, quick thinking game. (Not offered in 1985-86 academic year.)

4 Class Hours, 11 Laboratory Hours per half semester

PED 169 Tennis**½ Credit**

Instruction and practice in the basic strokes—forehand, backhand, serve and volley. Rules, terminology and equipment. Strategy for singles and doubles.

4 Class Hours, 11 Laboratory Hours per half semester

PED 170 Trail Riding**½ Credit**

Basics of grooming, saddling and safety procedures. Development and expansion of riding skills—learning to cope with natural hazards like creeks, traffic, terrain. Elementary knowledge of horses, their care and maintenance. (Taught off campus and an additional fee is required.)

4 Class Hours, 11 Laboratory Hours per half semester

PED 172 Volleyball**½ Credit**

A basic course in the fundamentals of power volleyball. Team strategy, history and rules. Drills and competitive play.

4 Class Hours, 11 Laboratory Hours per half semester

PED 175 Weight Training**½ Credit**

Individualized work on weight machine. Student selects activities along with instructor's guidance. Emphasis on improvement of weaknesses and a balanced approach. Physical fitness, principles of training.

3 Class Hours, 12 Laboratory Hours per half semester

PED 299 Independent Study**½ or 1 Credit**

Student undertakes a project of own choice with guidance from faculty member. The project is intended for a student who has completed requirements.

Prerequisite: 2 Semester Hours in Physical Education

PHYSICAL SCIENCE

PHS 111 Physical Science for Today

3 Credits

Beginnings of astronomy, the earth and moon, planets and satellites, the sun and other stars, cosmology. Chemistry of our atmosphere, weather and methods of modification, water cycle and pollution. Composition of the earth's crust erosional processes, earthquakes and volcanoes, plate tectonics, energy resources, nuclear radiation. Required field trips supplement classroom experience.

2 Class Hours, 2 Laboratory Hours

PHS 113 Physical Science—Astronomy

4 Credits

The Copernican and Ptolemaic models of the solar system. The planets, sun, moon and comets. Stellar magnitudes and evolution of stars. The size and age of the universe and modern developments in astronomy and cosmology. Required field trips supplement classroom experience.

3 Class Hours, 3 Laboratory Hours

Prerequisite: MAT 003B and C Basic Mathematics Review or equivalent

PHS 114 Physical Science—Meteorology

4 Credits

The atmosphere—composition, circulation, energy transfer, observations and instrumentation used. Weather phenomena—air masses, weather patterns, severe weather and optics. Forecasting through observations and plotting. Introduction to climatology, the control and classification of climates based upon principles of meteorology. Required field trips supplement classroom experience.

3 Class Hours, 3 Laboratory Hours

Prerequisite: MAT 003B and C Basic Mathematics Review or equivalent

PHS 115 Physical Science—Geology

4 Credits

Crystals, minerals, rocks—their structure and identification. Erosion of the crust, its uplift and deformation. Earthquakes and the interior of the earth, geologic dating and the physical history of the earth. Plate tectonics and continental drift, ecology from a geologic viewpoint. Required field trips supplement classroom experience.

3 Class Hours, 3 Laboratory Hours

Prerequisite: MAT 003B and C Basic Mathematics Review or equivalent

PHS 116 Physical Science—Energy & Environment

4 Credits

Basic physical principles and the role of these principles in understanding and appreciating the problems of energy production, distribution and the effects on the environment. Problems of pollution and depletion of natural resources. Required field trips supplement classroom experience.

3 Class Hours, 3 Laboratory Hours

Prerequisite: MAT 003B and C Basic Mathematics Review or equivalent

PHYSICS

PHY 100, 101 Preparatory Physics I and II

4, 4 Credits

Composition and resolution of vectors. Statics and dynamics. Conservation laws, wave motion, sound and light. Thermodynamics, electricity and magnetism. The physics of the atom.

4 Class Hours each

Prerequisite: MAT 003B and C Basic Mathematics Review or equivalent

PHY 117 Physics

3 Credits

Vectors, linear motion, energy, momentum, electric fields, potential difference, Ohm's law, d-c circuits, motion of charges in magnetic fields, electromagnetic induction. Mirrors and lenses, nature of light, atomic structure, production of X-rays, radioactive decay, nuclear reactions, interaction of radiation with matter, radiation detection, radiation protection standards. For Medical Laboratory and Radiological Technology students.

2 Class Hours, 2 Laboratory Hours

Prerequisite: MAT 003B and C Basic Mathematics Review or equivalent

PHY 141 Physics

4 Credits

Composition and resolution of vectors, forces in equilibrium, moments of forces, elasticity, linear and projectile motion, forces and motion, rotation, work and energy, impulse and momentum, harmonic motion, fluid mechanics, temperature, thermal expansion, heat. For Engineering Technology students.

3 Class Hours, 2 Laboratory Hours

Corequisite: MAT 141 Algebra and Trigonometry or equivalent

PHY 142 Physics

4 Credits

Thermodynamics, thermal properties of gases, wave motion, and sound, electrostatics, direct current, magnetism, electromagnetic induction, alternating current, electromagnetic radiation, illumination, reflection and refraction of light, mirrors and lenses, optical instruments, diffraction, nuclear energy. For Engineering Technology students.

3 Class Hours, 2 Laboratory Hours

Prerequisite: PHY 141 Physics

PHY 144 Physics II-E

4 Credits

Thermodynamics, wave motion and sound, photometry, reflection, refraction, dispersion, light, mirrors and lenses, optical instruments, diffraction, lasers, electrostatics, potential, current, resistance, magnetics, semiconductor theory. For Electrical Technology students.

3 Class Hours, 2 Laboratory Hours

Prerequisite: PHY 141 Physics, EET 121 Electrical Circuits

PHY 161 Physics

4 Credits

Structure and language of physics. Standard units of measurement of length, mass and time. Basic mathematical foundation: elementary trigonometry, vector algebra, powers of ten and significant figures. Mechanics: motion, Newton's Laws, work, energy and momentum principles, rotation. Waves and wave phenomena, mirrors and lenses, optical instruments, sound. First course in an introductory non-calculus sequence. For Liberal Arts students who need a laboratory science.

3 Class Hours, 3 Laboratory Hours

Prerequisite: MAT 141 Algebra and Trigonometry or equivalent

PHY 162 Physics

4 Credits

Concepts of heat and temperature, kinetic theory, thermodynamics. Electricity and magnetism: electrostatics, electrical circuits, electromagnetic phenomena. Modern physics: relativity, quantum theory, atomic structure radioactivity. Second half of introductory physics course for Liberal Arts students who need a laboratory science.

3 Class Hours, 3 Laboratory Hours

Prerequisite: PHY 161 Physics

PHY 181 Engineering Physics I

4 Credits

Vectors, equilibrium, kinematics, Newton's Laws of Motion, centripetal force, work and energy, impulse and momentum, rotation, elasticity, harmonic motion, hydrostatics and hydrodynamics.

3 Class Hours, 2 Laboratory Hours

Corequisite: MAT 163 Calculus with Analytic Geometry I or MAT 171 Engineering Calculus with Analytic Geometry I and EGR 100 Orientation or MAT 181 Calculus I with Analytic Geometry

PHY 182 Engineering Physics II

4 Credits

Relativistic mechanics, Coulomb's Law, electrostatic field, potential, capacitance, direct currents, magnetic force on currents, magnetic field of a current, induced emf, inductance, alternating currents.

3 Class Hours, 2 Laboratory Hours

Prerequisite: PHY 181 Engineering Physics I

Corequisite: MAT 164 Calculus with Analytic Geometry II or MAT 172 Engineering Calculus with Analytic Geometry II or MAT 182 Calculus II with Analytic Geometry and EGR 100 Orientation

PHY 281 Engineering Physics III

4 Credits

Temperature, heat transfer, thermodynamics, kinetic theory, waves, sound, geometrical and physical optics, introduction to quantum physics, atomic and nuclear physics.

4 Class Hours

Prerequisites: 1 year of calculus and PHY 182 Engineering Physics II or equivalent

Corequisite: EGR 200 Orientation

POLITICAL SCIENCE

POS 201 Introduction to American Government

3 Credits

American political institutions, processes and behavior. The relationships among cultural, legal and social aspects of the political system. Structure, organization and function of political parties, pressure groups and mass media. Application to contemporary issues and events.

3 Class Hours

POS 203 International Relations

3 Credits

Basic concepts and principles of world politics. International conflict resolution, international organizations, the struggle for power. Factors affecting the relationships among the major powers. Role of diplomacy, alliances, war and peace in the world arena.

3 Class Hours

POS 204 American State and Local Government

3 Credits

Theory and practice of state and local government, utilizing a problem-solving or "policy" approach. Students are encouraged to explore in depth the workings of city and county governments locally.

3 Class Hours

POS 299 Independent Study

1-3 Credits

An independent student project which is beyond the scope of courses currently offered by the department, directed by a faculty member with approval of the department chairperson.

Prerequisite: 3 semester hours of political science

PSYCHOLOGY

PSY 100 Psychology of Personal Adjustment

3 Credits

Investigation of bio-cultural factors which influence human behavior and study of the development of well-adjusted personality. Attention is directed to the learning and thinking the individual employs in solving personal problems in everyday living. (This course cannot be used as a prerequisite for other psychology courses.)

3 Class Hours

PSY 103 Psychology of Adulthood

3 Credits

Investigation of the continuity-change pattern that characterizes normal adulthood (20 to 60 years). Identification of individual responses to life crises. Introduction to skills that facilitate meeting self-selected goals and skills that assist others to fulfill their goals.

3 Class Hours

PSY 110 General Psychology

3 Credits

Definition and description of psychology. Functions of the neural system, sensation and perception, learning, memory, motivation, emotion, conflict and frustration, personality, social psychology. Methods and statistical applications, history and fields of psychology.

3 Class Hours

PSY 150 to 200 Special Topics in Psychology

1 Credit

Topics of interest to a (class size) group will be explored. Prospective students should make their request at least three weeks before the end of the preceding semester. Possible topics, for example, could include stress management or child rearing styles.

PSY 211 Child Development

3 Credits

The growth, maturation and development of children, including mental and motor phases, learning, motivation and personality formation.

3 Class Hours

Prerequisite: PSY 110 General Psychology

PSY 212 Adolescent Development

3 Credits

The developmental tasks of the adolescent years, influence of people and institutions on self-concept. Physical, psychological, intellectual effects and intellectual growth.

3 Class Hours

Prerequisite: PHY 110 General Psychology

PSY 214 Abnormal Psychology

3 Credits

Survey of the normal and abnormal personality with special emphasis on certain causal factors pertaining to maladaptive behavior. A general framework for understanding abnormal behavior patterns, including common misconceptions, accepted definitions, and the classification of mental disorders.

3 Class Hours

PSY 217 Counseling and Interviewing

3 Credits

Varied methods of interviewing and counseling, group dynamics employing current theories, situational examples and means for determination of method to be used. Practical cases in social services, clinics, hospitals and educational institutions. Overall training and personality of the counselor.

3 Class Hours

Prerequisite: PSY 110 General Psychology

PSY 223 Intelligence and the Mentally Retarded

3 Credits

The several meanings of the concept of intelligence, distribution of intelligence in populations, development and organization of intelligence at different levels, concepts of retardation. The various levels and causations of retardation, development at all chronological ages, learning and employment expectations, methods of assisting with behavioral improvement, cooperative social agencies.

3 Class Hours

Prerequisite: PSY 110 General Psychology

PSY 227 Behavior Modification

3 Credits

Principles of behavior modification using classical and operant techniques. Practical applications of these principles to the fields of child care, psychotherapy and correctional institutions.

3 Class Hours

Prerequisite: PSY 110 General Psychology

PSY 299 Independent Study

1-3 Credits

An individual student project in psychology which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisites: PSY 110 General Psychology plus 3 additional hours in a 200 level PSY course

RADIOLOGIC TECHNOLOGY

RAD 100 Introduction to Radiologic Technology 2 Credits

Part I Overview of radiologic technology through the study of its historical development, its placement in the medical field today, the organization of a modern radiology department, professional ethics, and medicolegal aspects of radiology.

Part II Introduction and orientation to the radiology department in an affiliated hospital.

First half semester: 2 Class Hours

Second half semester: 16 Laboratory Hours

RAD 101 Radiologic Technology I 3 Credits

Introduction to the basic principles of radiographic imaging including recording media, processing methods, radiographic quality and radiographic accessories. Lecture and laboratory are coordinated to enhance these fundamental concepts.

3 Class Hours, 1 Laboratory Hour

RAD 102 Radiologic Technology II 3 Credits

Advanced study of the factors contributing to the radiographic image.

3 Class Hours

Prerequisite: RAD 101 Radiologic Technology I or permission of instructor

RAD 103 Positioning I 1 Credit

Instruction and practice in radiographic positioning of the appendicular skeleton.

3 Laboratory Hours

RAD 104 Positioning II 1 Credit

Instruction and practice in radiographic positioning of the axial skeleton.

3 Laboratory Hours

Prerequisite: RAD 131 Clinical Education I

RAD 110 Methods of Patient Care 2 Credits

Patient care procedures routinely performed in the radiology department. Basic medical terminology for the student radiographer.

2 Class Hours, 1 Laboratory Hour

RAD 115 Radiation Protection 1 Credit

Interaction of radiation with living organisms, particularly as related to humans. Emphasizes basic radiation protection, its philosophy and rules governing the application of ionizing radiation on humans.

1 Class Hour

RAD 131 Clinical Education I (Winterim)

Clinical assignment devoted to observation and application of elementary radiographic procedures under direct supervision in a cooperating hospital. (Successful achievement is a graduation requirement.)

2 Weeks of instruction

Prerequisites: BIO 131 Human Biology I and RAD 100 Introduction to Radiologic Technology and RAD 110 Methods of Patient Care or permission of instructor

RAD 132 Clinical Education II 2 Credits

Observation and clinical experience for the development of competency involving elementary radiographic procedures in an affiliated hospital.

16 Laboratory Hours

Prerequisite: RAD 131 Clinical Education I (Winterim) or permission of instructor

RAD 133 Clinical Education III (Summer Term I) 3 Credits

Clinical experience for development of competency involving general radiographic procedures in an affiliated hospital.

40 Laboratory Hours

Prerequisites: RAD 132 Clinical Education II and BIO 132 Human Biology II or permission of instructor

RAD 203 Positioning III 1 Credit

Laboratory instruction and practice in positioning techniques involving the skull and facial bones.

3 Laboratory Hours

Prerequisite: RAD 133 Clinical Education III or permission of instructor

RAD 210 Radiologic Physics 4 Credits

Physics of radiographic equipment, including fundamental electronics, X-ray production, the X-ray tube and related circuitry, and preventive maintenance.

4 Class Hours

Prerequisite: PHY 117 Physics or permission of instructor

RAD 216 Imaging Modalities 1 Credit

Introduction to the principles of computerized axial tomography, nuclear medicine and ultrasound.

1 Class Hour

Prerequisite: RAD 210 Radiologic Physics or permission of instructor

RAD 220 Radiologic Pathology 2 Credits

A presentation of the various medical and surgical diseases and their relationship to radiographic procedures.

2 Class Hours

Prerequisite: BIO 132 Human Biology II or permission of instructor

RAD 225 Special Radiographic Procedures 4 Credits

Introduction to radiographic examinations involving surgical procedures and specialized equipment.

3 Class Hours, 2 Laboratory Hours

Prerequisite: RAD 230 Clinical Education IV or permission of instructor

RAD 230 Clinical Education IV 2 Credits

Practical application of advanced positioning techniques with emphasis on the skull and facial bones.

16 Laboratory Hours

Prerequisite: RAD 133 Clinical Education III (Summer) or permission of instructor

RAD 231 Clinical Education V (Winterim II)

Clinical assignment devoted to the application of radiographic procedures under direct supervision in a cooperating hospital. (Successful achievement is a graduation requirement.)

2 Weeks of instruction

Prerequisite: RAD 230 Clinical Education IV or permission of instructor

RAD 232 Clinical Education VI 2 Credits

Practical application of advanced radiographic procedures under direct supervision in an affiliated hospital.

16 Laboratory Hours

Prerequisite: RAD 231 Clinical Education V (Winterim) or permission of instructor

RAD 233 Clinical Education VII 3 Credits

Clinical experience for the development of competency.

40 Laboratory Hours

RAD 245 Radiobiology 2 Credits

Radiobiology and advanced radiation protection procedures related to diagnostic and therapeutic uses of radiation.

2 Class Hours

Prerequisite: RAD 210 Radiologic Physics or permission of instructor

RAD 250 Image Assessment**2 Credits**

The basic principles and techniques of quality assurance testing presented and illustrated through laboratory experiments. Major emphasis on the tests and measurements used to analyze imaging systems with minimum information loss.

2 Class Hours, 1 Laboratory Hour

Prerequisite: RAD 210 Radiologic Physics or permission of instructor

RAD 295 Seminar in Radiography**2 Credits**

Preparation of the technical report and its organization for both written and oral presentation. Readings in current literature and journals.

2 Class Hours

Prerequisite: Senior Year Status

READING AND LEARNING SKILLS**RDG 090 Reading Fundamentals****0 Credit**

A non-credit course involving individual diagnosis of a student's reading strengths and weaknesses, and development and implementation of a program to upgrade basic skills. Content to vary with individual student.

2 Class Hours, 2 Laboratory Hours

RDG 100 College Reading**0 Credit**

An individualized course emphasizing vocabulary expansion, inferential and critical comprehension, and flexible rate. Instruction and practice in the application of reading skills to specific content areas.

2 Class Hours, 2 Laboratory Hours

RDG 110 Rapid Reading**1 Credit**

Development of skills characteristic of the mature reader. Examination of structure of material, emphasis on identification of purpose, flexibility of rate. Use of controlled readers, reading accelerators.

2 Class Hours

All of the following LRS courses are limited-credit activities for students wishing to enhance various study skills:

LRS 101 Study Management**½ Credit**

General principles of academic success, relationship of outside work and study, scheduling and organizing time, study and concentration. Students will construct a working study schedule.

3 Class Hours, 3 Weeks

LRS 102 Memory and Exams**½ Credit**

Theories of memory. Methods of review, strategies for taking essay and objective examinations.

3 Class Hours, 3 Weeks

LRS 103 Textbook Mastery**½ Credit**

Use of college textbooks as study aids, principles of effective text reading, text study systems. Extensive application of these principles in the student's own textbook.

3 Class Hours, 3 Weeks

LRS 104 Listening and Notetaking**½ Credit**

Examination of organizational patterns as they exist in oral communication. Exploration of systems on note-taking, and application of systems to student's own lectures and notes.

3 Class Hours, 3 Weeks

LRS 110 The Research Paper**1 Credit**

Shaping the paper: development of a topic, location of appropriate resources and digestion of the material. Writing the paper: outlining, effective composition and proper form. A hands-on approach in which students actually research a topic and compose a term paper.

2 Class Hours for 8 Weeks

LRS 120 The Art of Thinking**1 Credit**

Logic as an art. Logical principles taught in imaginative ways to achieve understanding. Emphasis on the practice of reasoning. Fundamental logical rules are taught as tools to enable the students to gain experience and confidence in thinking about issues that are important to them.

2 Class Hours for 8 Weeks

SIGN LANGUAGE**HUS 120 Beginning Sign Language****3 Credits**

Introduction to total communication as a means of conversing with the deaf. American Sign Language, finger-spelling, numbers, idioms, non-verbal communication, singing songs, poems, stories, psychology of the deaf.

3 Class Hours

HUS 220 Intermediate Sign Language I**3 Credits**

Conversational Sign Language: American Sign Language with English translations. ASL based upon general topics of interest in every day life.

3 Class Hours

Prerequisite: HUS 120 Sign Language

HUS 230 Intermediate Sign Language II**3 Credits**

Introduction to interpreting: Intensive review of ASL with English translations. Emphasis on non-verbal communications. Extensive use of audio cassette to increase students' sign fluency.

3 Class Hours

Prerequisite: HUS 121, 220 or permission of instructor

SOCIAL SCIENCE (INTERDISCIPLINARY)**SOS 120 Science Technology and Society****3 Credits**

A study of the interaction of the forces of science and technology with contemporary society, such as government, industry, family, education and organized religion. In addition, students examine the major views (utopian optimist vs. dystopian pessimist) on our contemporary scientific technology. Examine such current topics as recombinant DNA research, space colonization, artificial intelligence, computers.

3 Class Hours

SOS 125 Global Security or Nuclear Armageddon: Nuclear Weapons and the Prospects for Human Survival **3 Credits**

Short history of the development of nuclear weapons and the first atomic war. Actual and theoretical effects of nuclear weapons on human beings, organized societies and the environment. Threat of nuclear war in the immediate future, efforts at nuclear arms control and nuclear disarmament, possible security alternatives to nuclear weapons
3 Class Hours

SOS 126 War, Peace and a Just World Order **3 Credits**

Is war the product of our nature or our nurture? Is the war system an inherent part of the nation state system? Can war be controlled or eliminated in the existing world? If not, on what shape and form will a new world order have to be based? How will it be brought into being? These questions and related issues will be addressed as we ponder the prospects for war, peace and a just world order as humanity enters the 21st Century.
3 Class Hours

SOS 130 Man, Technology and Environment **3 Credits**

Biological, economic and political dimensions of the environmental crisis. The conditions created by population growth, a rising standard of living, the increased demand on natural resources, and the advance of technology. Alternative strategies to deal with pollution and energy problems.
3 Class Hours

SOS 146 Introduction to Gerontology **3 Credits**

Multidisciplinary analysis of the bio-psycho-social characteristics of older persons. Examination of major issues and dynamics involved in the process of growing old.
3 Class Hours
Prerequisite: PSY 110 General Psychology or permission of instructor

SOS 150 Introduction to Human Service Work **6 Credits †**

Treatment modalities, goal planning, facility usage, counseling, helping skills, principles of human development, etiology, normalization, detection. Institutionalization effects, empathy training, evaluation, problem solving, transactional skills, theoretical systems, ethical issues. Psychoactive drugs, habilitative and rehabilitative programs, community services.

† Credit available only to those who complete successfully a certified institution - based training program and credit is only applicable toward the Associate in Science degree in the Liberal Arts Division's Mental Health and Retardation Emphasis. Credit cannot be used to fulfill other social science requirements.

SOS 160-169 Case Studies in Ethnicity

A sociological analysis of the origins and experiences, the cultural patterns and social relationships of Americans from various ethnic backgrounds.

SOS 160 The Italian American **1 Credit**

Deals with Italian Americans as an initial attempt to focus attention on ethnic groups and their persistent impact. (Not offered during 1985-86 academic year.)
1 Class Hour

SOS 170-179 Contemporary Cultures

Studies in comparative cultures featuring social, political, economic, literary/artistic detail. The United States and at least one foreign culture compared and contrasted as a means of gaining insight into and understanding both.

SOS 170 United States and the Mideast **3 Credits**

Examination of the cultural and political dimensions which underlie current U.S.-Middle East relations and conflicts both internal and external to the region. Historical perspective on comparative cultures and value systems. Political and cultural differences. Energy security, strategic importance to the U.S., and Arab-Israeli conflict, the Gulf states, Egypt, Turkey, Iran.
3 Class Hours

SOS 220 Post-Industrial Civilization: Honors Seminar

4 Credits

Study of the planet as an interdependent unit facing the challenge of survival with hemispheric differences between "post-industrialized" and "non-industrialized" societies. Interconnections between economic, political, social systems with varying values and traditions. Major works in studies of the future examined for possible answers to such basic survival questions as problems of population, production and distribution of food, energy and other essential resources, ultimate difficulties of pollution and waste disposal.
4 Class Hours

SOS 275 Honors Internship Seminar

3 Credits

Opportunity for Liberal Arts honor students to have a work experience in the professional field in which they plan to major, as they intern in Broome County Government or non-profit human services agencies.
1 Class Hour, 8 Practicum Hours

SOS 288 Seminar in Community Social Service Organizations

3 Credits

Study of federal, state and local agencies, their functions, limitations and interrelationships. Emphasis on determining the structure and purpose of an agency as related to delivery of human services. A beginning, working knowledge of how to integrate human service skills into over-all activities in the field will be provided. Weekly field work in a selected agency required.
2 Class Hours, 2 Laboratory Hours
Prerequisites: 6 Credits in psychology or sociology, 3 of which may be taken concurrently

SOS 290 Social Science Field Experience

3 Credits

Introduction to the practical issues of the "helping relationship" and an understanding of agency operations. Each student to spend a minimum of 90 hours working in community social and educational agencies. Weekly seminars, outside reading and written reports are required. During the seminars specific helping techniques such as facilitating, goal-setting, reinforcing and supporting will be analyzed.
1 Class Hour
Prerequisite: 3 Credit hours in psychology or sociology plus completion of or concurrent enrollment in 3 additional credit hours in either of these areas.

SOCIOLOGY

SOC 110 Introduction to Sociology

3 Credits

Sociological facts and principles dealing with the scientific study of human relationships. Emphasis on analysis and study of culture and human society, socialization, groups and group structures. Stratification, collective behavioral patterns and the concept of social institutions. Initial experiences for students who desire an introduction to the sociological perspective.
3 Class Hours

SOC 111 Social Problems

3 Credits

The sociology of social and urban problems. Topics may include crime, population, inequality, discrimination, mental illness, attitudes toward work, social control and the dynamics of social change. Students should be aware that individual instructors approach these problems in different ways, depending on students' needs and instructors' interests. SOC 110 Introduction to Sociology is recommended as an initial experience.
3 Class Hours

SOC 120 Ethnic Groups

3 Credits

Survey of the structure and interrelationships of selective ethnic minority groups. The approach is socio-historical, with an attempt to integrate the major theories and techniques of sociological analysis as applied to issues of ethnic concern.

3 Class Hours

SOC 140 Working Changes and Choices

3 Credits

The central theme of this course is the examination through historical and contemporary experiences of work in an evolving environment of change that ushers in difficult and varied choices. Its implication is that peoples' attitudes, and not conditions by themselves, are responsible for such change. The course format is non-traditional: it includes about three class meetings, two open-book take-home (to be mailed) tests, and one critical book review. Students must be self-motivated and meet the deadlines established in conference with the course instructor.

SOC 210 Crime and Deviant Behavior

3 Credits

The theoretical aspects of deviance as crime, variation in crime rates, the social and psychological causes of crime, other deviant behavior and the salient research discoveries in these areas. Specific areas within criminology will be reviewed from a multidisciplinary approach to permit as broad an understanding of the problem as possible.

3 Class Hours

Prerequisite: SOC 110 Introduction to Sociology

SOC 230 Marriage, Family and Divorce

3 Credits

Social and personal factors which make for adequate family functioning, the forms the family takes, its internal processes and the functions it serves in society. Covers systematically the important theoretical and experimental ground on those issues relevant to both the scholarly and practice-minded student.

3 Class Hours

Prerequisite: SOC 110 Introduction to Sociology

SOC 299 Independent Study

1-3 Credits

An individual student project in sociology which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: 3 semester hours in sociology

SPANISH

PLACEMENT IN LANGUAGE — Generally, one year of high school foreign language is equivalent to one semester in college. Students with two years of a language in high school should register for intermediate level courses.

SPA 101, 102 Beginning Spanish

4, 4 Credits

Basic principles of grammar and syntax. Emphasis on oral practice in classroom, supplemented by work in audio-lingual laboratory. Reading and discussion of graded literary and cultural texts.

4 Class Hours

Prerequisite: SPA 101 Beginning Spanish for SPA 102

SPA 201 Intermediate Spanish I

3 Credits

Intensive review and continuation of grammar and syntax. Intensive and extensive reading of literary works of recognized authors. Aural comprehension and oral practice in the classroom and audio-lingual laboratory.

3 Class Hours

Prerequisite: SPA 102 Beginning Spanish

SPA 202 Intermediate Spanish II

3 Credits

Intensive and extensive reading of literary works of recognized authors. Classroom discussion and conversation based on these texts, in the language.

3 Class Hours

Prerequisite: SPA 201 Intermediate Spanish I

SPA 203, 204 Spanish in Conversation and Composition Through Literary Works

3,3 Credits

The Spanish language in conversation and basic composition practice through the reading of various literary works. Dialogues and scenes, either of original student creation or of published works.

3 Class Hours

Prerequisites: SPA 202 Intermediate Spanish II or its equivalent for SPA 203

SPA 203 Spanish in Conversation and Composition Through Literary Works for SPA 204

SPEECH

SPK 101 Basic Speaking

2 Credits

Speech communication through voice, words and action. Voice production, diction, platform presence. Organization of ideas. Practice in presenting speeches of different types. Not for Liberal Arts Students.

2 Class Hours

SPK 102 Effective Speaking

3 Credits

Speech communication through voice, words and action. Voice production, diction, platform presence. Organization of ideas. Practice in presenting speeches of different types.

3 Class Hours

SPK 203 Advanced Speaking

3 Credits

Designed so that students can review what they have learned in SPK 102 Effective Speaking, learn advanced techniques for informative and persuasive speaking, learn techniques for special speaking occasions. Involvement in a debate as a means of perfecting research techniques, impromptu speaking skills, and the processes of logical thinking and organizing.

3 Class Hours

Prerequisite: SPK 102 Effective Speaking

SPK 299 Independent Study: Speech

1-3 Credits

An individual student project concerned with advanced work in a specific area of speech. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 semester hours of college level work in speech

THEATER

THR 101 Theater Appreciation

3 Credits

Art of the theater to increase understanding and appreciation of drama. A cultural approach considering the interrelationship of all aspects of production including plays, acting, directing, costume, make-up and lighting. Attendance at local productions. (Students taking this course may also be interested in LIT 230 American Drama, LIT 233 World Drama.)

3 Class Hours

THR 109, 110 Practicum in Theater Design and Technology 3,3 Credits

Stage design (both lighting and scenic) and construction techniques are studied first hand, as students participate in actual production of two plays each semester. Problems encountered during a production are analyzed. Individualized instruction is increased as students begin to focus on their particular areas of interest.
3 Class Hours each

THR 111 Beginning Acting 3 Credits

Fundamental acting techniques. Development of individual skills and disciplines relative to external acting techniques. Use of face, voice and movement.
3 Class Hours

THR 112 Acting 3 Credits

Intensive application of acting techniques through scene study and performance. Problems of character analysis, internal acting and style.
3 Class Hours

THR 117 Creative Dramatics 3 Credits

Fundamentals of creative dramatics, its use in teaching, recreation and rehabilitation. Introduction to techniques used and practical application opportunities.
3 Class Hours

THR 151 Theater Production I 3 Credits

Classroom and workshop study relative to production of plays, including historical and dramatic perspective. Script analysis, play selection, audience research, publicity, administration of a theater.
3 Class Hours

THR 152 Theater Production II 3 Credits

Classroom and workshop training for stage production. Special attention to stage management, operation of stage crews, house management. Coordination of visiting and touring theater companies regarding production and logistics.
3 Class Hours
Prerequisite: THR 151 Theater Production I

THR 190 Broome Community College Theater 1 Credit

Students who participate in the plays and performances of the BCC Theater Co. receive one credit per semester. See page 31.

THR 201, 202 Children's Theater 3,3 Credits

Touring children's theater company during academic year. Performances at area elementary schools for classtime and assembly period programs. Visiting with students pre/post production. Design and construction of costumes, sets and properties. Analysis of children-oriented plays, development of scripts, rehearsal and performance.
3 Class Hours each

THR 203 Summer Touring Children's Theater Company 3 Credits

Touring children's theater company during summer. Performances at area recreation centers, parks, camps and playgrounds. Visiting with children pre/post production. Design and construction of costumes, sets, and properties. Analysis of children-oriented plays, development of scripts, rehearsal and performance.
3 Class Hours

THR 218 Role Study and Characterization 3 Credits

The varied creative processes by which an actor might develop a characterization are studied in theory and explored in practice with emphasis upon scenework.
3 Class Hours

THR 219 Periods and Styles of Acting 3 Credits

Procedures and techniques necessary for acting in theatrical and period productions such as Elizabethan, Italian Renaissance, Restoration, Absurdist, and innovative styles.
3 Class Hours
Prerequisite: THR 218 Role Study and Characterization or permission of instructor

THR 231 Stage Directing I 3 Credits

Examination of the perspective of the director in relation to himself, the play, the actors, designers, playwright, and the collaborative evolution of the production. Development of directing methods and techniques in terms of casting, pictorial emphasis and harmony, rehearsal and production procedures. Preparation of prompt book and direction scenes. Proscenium and non-proscenium techniques.
3 Class Hours

THR 232 Stage Directing II 3 Credits

Detailed analysis of directing in relation to theatrical styles and periods. Examination of the techniques of such directors as Meyerhold, Antoine, Guthrie and Kazan. Direction of pertinent scenes.
3 Class Hours

THR 299 Independent Study: Theater 1-3 Credits

An individual student project concerned with advanced work in a specific area of theater. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.
Prerequisite: 3 semester hours of college level work in theater

TOOL AND DIE MAKING

TDA 111 Blueprint Reading 3 Credits

Lines, dimensioning notes. Interpretation of blueprints as used in industry, making plans for operations. Orthographic projection, sketching as related to detail and assembly drawings used in machine shop. Interpretation of drawings of complex parts and mechanisms for features for fabrication, construction and assembly.
3 Class Hours

TDA 113 Survey of Basic Industrial Safety and First Aid 2 Credits

Work area safety, safe material handling, tool and equipment safety, machinery safeguards, personal protection, electrical safety, hazardous materials and operations, fire prevention, understanding OSHA, first aid.
2 Class Hours

TDA 114 Benchwork 2 Credits

Description or use of work benches, vices, clamps, hammers, cold chisels. Characteristics of files and filing methods, adjustable and non-adjustable wrenches, twist drills, reamers, broaches, threading taps and dies, hacksaws, contour machines, screw drivers, pliers, shears, surface and height gages, combination sets and automatic punches. Instructions on how to scribe horizontal, vertical, inclined, parallel and perpendicular lines as well as circles and circular areas, cranks, squareness, arms, holes, keyways, templates, cams, sprockets.
2 Class Hours

TDA 120 Precision Measurement and Inspection**3 Credits**

Measuring tools and instruments, simple through complex. Micrometers, verniers, gage blocks, height gages, sine bar, super micrometer, comparators, surface finish comparison, test indicators, toolmakers microscope and optical flats.

3 Class Hours

Prerequisites: MET 113 Engineering Drawing I, MAT 139 Algebra II and MET 121 Manufacturing Processes I

TDA 130 Tool Grinding**2 Credits**

Wheel selection and shapes, oil-stones, honing cutting tools, grinding, single-point tools, angle calculations, universal grinder, drilling grinding, testing drill points. Grinding milling cutters, clearance grinding, tooth rest, grinding side, shank, angular inserted-blade, and helical cutters. Gear cutters, hobs, reamers, taps, radial and tangential chasers. Grinding carbide tools, grinding internal, slab broaches.

1 Class Hour, 2 Laboratory Hours

Prerequisite: MAT 140 Trigonometry

TDA 132 Statics**2 Credits**

Vectors, their composition and resolution, colinear, coplaner, concurrent and nonconcurrent force systems, friction, free body diagrams, tension, shear, compression, first moments, centers of gravity, moments of inertia and truss analysis.

2 Class Hours

Prerequisite: MAT 139 Algebra

TDA 140 Production Processes**3 Credits**

Theory and application of multi-operation tooling. Automatic tool changes; numeric and other positioning systems to turning, milling, drilling, broaching, grinding, honing. Production inspection techniques including airgauging, coordinate measuring machines.

3 Class Hours

Prerequisite: MET 122 Manufacturing Processes II

TDA 200 Metallurgy**2 Credits**

Ferrous and non-ferrous alloys including annealing, normalizing, quench hardening, tempering, age hardening, austempering. Hardness testing, microscopic examination of metallic structures, phase modification, phase diagrams. Laboratory exercises to support theory.

1 Class Hour, 2 Laboratory Hours

Prerequisite: MET 121 Manufacturing Processes I

TDA 230 Tool Design**4 Credits**

Introduction to the problems of tool design with emphasis on planning the processes of production, designing and developing the necessary tools, and utilizing available manufacturing facilities. Practical analysis and comparison of the use and cost of tools, jigs and fixtures, dies, molds and gages as they are used in modern manufacturing.

4 Class Hours

Prerequisites: MET 122 Manufacturing Processes II and MAT 139 Algebra

TDA 235 Strength of Materials**3 Credits**

Theory of stress and strain as applied to select engineering materials, particularly important in the design and construction of tools and dies. Studies in tension, compression, shear, flexure, thermal changes in metallic and non-metallic materials.

3 Class Hours

Prerequisite: TDA 132 Statics

TDA 248 Hydraulics and Pneumatics**3 Credits**

Basic theory of hydraulic and pneumatic systems. Combinations of systems in various circuits, basic designs and functions of circuits and motors, controls, electro-hydraulic servo-mechanisms, plumbing, filtration, accumulation and reservoirs.

2 Class Hours, 2 Laboratory Hours

Prerequisite: TDA 132 Statics

TDA 250 Control Systems**3 Credits**

Hydraulic, pneumatic, mechanical, electrical and electronic control systems and components. Basic description, analysis and explanation of operation. Typical performance characteristics, limitations on performance accuracy, applications and their utilization in industrial processes.

3 Class Hours

Prerequisites: MET 122 Manufacturing Processes II and TDA 248 Hydraulics and Pneumatics

**TDA 261 Introduction to Quality Control
and Inspection****3 Credits**

Introduction to inspection devices and practices. Basic statistical techniques as they relate to the use of control chart sampling plans and related quality control procedures.

3 Class Hours

Prerequisite: MAT 139 Algebra

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A.A.S., Broome Community College

EDUCATIONAL OPPORTUNITY PROGRAM

WESTLEY A. VAN DUNK, Director
A.A., Broome Community College
B.S., SUNY at Binghamton

BRUCE POMEROY, Asst. Director
A.A., Broome Community College
B.A., University of Iowa
M.A., Bradley University

ELECTRICAL ENGINEERING TECHNOLOGY

ROBERT L. REID, Chairperson
A.A.S., Broome Community College
B.S., Rochester Institute of Technology
M.S., SUNY at Binghamton
JAMES L. ANTONAKOS, Instr.
A.A.S., Broome Community College
B.S.E.E., Rochester Institute of Technology

MICHAEL COPPOLA, Inst.
A.A.S., Broome Community College
B.T., Rochester Institute of Technology
CHARLES W. DAHILL, Assoc. Prof.
B.S.E.E., West Virginia Institute of Technology
M.S.E.T., Rochester Institute of Technology

WILLIAM DERVAY, Assoc. Prof.
A.A.S., Broome Community College
B.S., SUNY College at Oswego
BRUCE F. DEVOE, Asst. Prof.
B.S., M.S., SUNY at Buffalo
ALAN C. DIXON, Prof.
B.S.E.E., M.S., Clarkson College of Technology
RICHARD LEO, Assoc. Prof.
A.A.S., Broome Community College
B.S., M.S., SUNY College at Oswego

Emeritus
LAWRENCE J. SITTERLEE
ROBERT E. BEERS

ENGINEERING SCIENCE AND PHYSICS

JACK D. FOSTER, Chairperson
B.S., Calvin College
M.S., Yeshiva University
WILLIAM C. BESTON, JR., Assoc. Prof.
B.S., M.S., Clarkson College of Technology

Intern Engineer
JOSEPH BIEGEN, Assoc. Prof.
B.C.H.E., B.S., M.S., Ph.D.,
Clarkson College of Technology
PAUL L. BORN, Tech. Asst. II
A.A., Broome Community College
ROBERT K. FORSYTHE, JR., Prof.
B.S., Ursinus College
M.S., Clarkson College of Technology
JOHN W. GERTY, Prof.
B.A., SUNY at Buffalo
M.S., University of Iowa
MICHAEL GLASGOW, Asst. Prof.
B.S., Memphis State University
KAREN J. GOODMAN, Assoc. Prof.
B.S., SUNY at Albany
M.S., Cornell University

HOWARD HERZOG, Prof.
B.E.E., M.S., City College of New York
LUDWIG P. LANGE, Prof.
B.S., Concordia University, Montreal
M.S., Birmingham University, United Kingdom
RALPH McGREW, Asst. Prof.
B.S., Pennsylvania State University
M.S., Cornell University
MARTHA NEGUS, Instructor
B.S., Clarkson College of Technology
RICHARD PLUMER, Asst. Prof.
B.S., M.S., Ph.D., University of Illinois
A.M., Columbia University
MARGUERITE RABOY, Assoc. Prof.
B.A., Radcliffe College
M.A., New York University
M.A.T., SUNY at Binghamton
PETER RUGGIERI, Asst. Prof.
B.S., Cooper Union
M.S., University of Pennsylvania

Emeritus
HENRY KETCHUM

FACULTY STUDENT ASSOCIATION

GARY B. FINCH, Executive Director
A.A.S., Broome Community College

Director
Appointment Pending

FINANCIAL AID

Assistant Director
Appointment Pending

FIRE PROTECTION TECHNOLOGY

See this heading under Adjunct Faculty

ENGLISH

RUSSELL N. LITTLEFIELD, Chairman
A.B., Colgate University
M.A., SUNY College at Cortland
ANTOINETTE M. ALECCIA, Asst. Prof.
B.A., Rosary Hill College
M.S.T., SUNY at Binghamton
REBECCA L. BENNETT, Asst. Prof.
A.B., SUNY College at Fredonia
M.A., University of Tennessee
DENTON COVERT, Jr., Assoc. Prof.
B.A., West Virginia Wesleyan College
M.Div., Wesley Theological Seminary
M.A., SUNY at Binghamton
PATRICIA DURFEE, Prof.
B.S., SUNY College at Buffalo
M.A., John Carroll University
ERNEST C. GIORDANI, Prof.
B.A., M.A., SUNY at Binghamton
JACK F. GUILLON, JR., Assoc. Prof.
A.A., Broome Community College
B.A., M.A., SUNY at Binghamton
STEPHEN A. KORDUCAVICH, Prof.
B.S., M.S., University of Scranton

BCC FOUNDATION

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B.S., Bowling Green University
M.S., Elmira College

LINDA L. BECK, Director
B.S.N., Columbia Presbyterian Hospital
M.S.N., C.F.N.P., SUNY at Binghamton

HEALTH SERVICE

AUDRY L. LAWTON
R.N., Wilson Memorial Hospital

HISTORY AND SOCIAL SCIENCES

RITA HOGAN, Chairperson
B.A., M.A., SUNY at Binghamton
FRANCIS L. BATTISTI, Asst. Prof.
A.A.S., Broome Community College
B.S., M.S., SUNY at Albany
M.S.W., Syracuse University
PATRICIA A. BEGASSE, Asst. Prof.
A.B. Smith College
M.S., SUNY College at Cortland
M.S., University of Scranton
FRANCIS P. CASELLA, Prof.
B.A., M.A., SUNY at Albany
THOMAS L. CRANDELL, Asst. Prof.
B.A., Kings College
M.S., University of Scranton
Ph.D., Cornell University
CHARLES CROLL, Prof.
B.A., SUNY at Binghamton
M.S., SUNY College at Oneonta
FRANK S. DISTEFANO, Assoc. Prof.
A.B., University of South Carolina
M.A., SUNY at Albany
GERALD FREEMAN, Assoc. Prof.
A.A., Keystone Junior College
B.S., East Stroudsburg State College
M.S., SUNY College at Cortland

DOUGLAS GARNER, Assoc. Prof.
B.A., M.A., SUNY at Albany
NORMAN T. HERBERT, Assoc. Prof.
B.S., Massachusetts Institute of Technology
M.B.A., Syracuse University
M.A., SUNY at Binghamton
JO ANNE MANIAGO, Assoc. Prof.
B.A., University of Tennessee
M.A., Ph.D., Boston University
ROGER McVANNAN, Assoc. Prof.
B.A., SUNY at Binghamton
M.A., M.S., SUNY at Albany
PATRICK E. PAVILONIS, Asst. Prof.
A.A., Broome Community College
B.A., SUNY at Binghamton
J.D., Rutgers University
RICHARD M. ROMANO, Prof.
B.A., St. Lawrence University
M.A., Ph.D., SUNY at Binghamton
MARY ANN THROUP
B.A., M.A., Ph.D., SUNY at Binghamton
Emeritus
ROBERT COTTEN
W. PORTER SWIFT

HUMANITIES DEPARTMENT

PAUL A. CHAMBERS, Chairperson
B.A., St. Bernard's Seminary
M.Ed., Cornell University
JAMES E. BOYDEN, Assoc. Prof.
B.A., SUNY at Binghamton
M.A.T., Brown University
ROBERT A. KELLER, Asst. Prof.
Pratt Institute
MICHAEL KINNEY, Assoc. Prof.
B.A., Glassboro State College
M.M., SUNY at Binghamton

JOSEPH PETRONE, Asst. Prof.
B.A., SUNY at Binghamton
HAROLD SUNSHINE, Assoc. Prof.
B.A., M.Ed., SUNY at Buffalo
PATRICIA WELLER, Assoc. Prof.
A.A., Broome Community College
B.A., SUNY at Binghamton
ANGELO ZUCCOLO, Assoc. Prof.
B.A., Providence College
M.A., SUNY at Binghamton

Emeritus
HERBERT CHURCH-SMITH
MILTON KIRKPATRICK

INDUSTRIAL SAFETY AND OCCUPATIONAL HYGIENE

See this heading under Adjunct Faculty

CECIL C. TYRRELL LEARNING RESOURCES CENTER

JAMES D. BAKER, Director
B.S., Ithaca College
M.S.L.S., Syracuse University
JEAN L. McEVOY, Asst. Librarian
B.A., Hastings College
M.A.L.S., University of
Wisconsin/Madison

JANET K. POLAND
A.A. Keystone Junior College
B.A., Lycoming College
M.L.S., SUNY at Albany

JANE M. RAWOOF, Asst. Librarian
B.A., George Washington University
M.S.L.S., Catholic University

SUZANNE G. SULLIVAN, Assoc.
Librarian
B.A., Nazareth College
M.S.L.S., Syracuse University
MARGARET A. WINGATE, Assoc.
Librarian
B.A., Boston University
M.L.S., SUNY at Albany
M.A., SUNY at Binghamton

Emeritus
JOAN FOLEY
ERNEST ESTES

LEARNING SKILLS CENTER

A. STEVEN NATALE, Chairman
B.A., St. John Fisher College
M.A., SUNY College at Brockport
LINDA LINVILLE, Asst. Prof.
B.A., Keuka College
M.Ed., University of Florida

MARGARET D. LUCIANO, Asst. Prof.
A.B., M.A., SUNY at Albany
DAVID MICHALAK, Tech. Asst. II
A.S., Broome Community College
B.S.M.E., Rochester Institute of
Technology
M.A., SUNY at Binghamton
ELLEN PARKER, Tech. Asst. II
B.A., William Patterson College
CAROL E. STEPHENS, Tech. Asst. II
B.S., Elmira College
M.A., SUNY at Binghamton

LIBERAL AND GENERAL STUDIES

LLOYD W. HARTMAN
Professor Emeritus
HAROLD W. HICKEY
Dean Emeritus

GEORGE HIGGINBOTTOM
Dean of the Division
A.B., Harvard University
M.A., San Francisco State
University

MATHEMATICS DEPARTMENT

WILLIAM G. VICK, Chairperson
B.A., M.A., Colgate University
RALPH S. BEGEAL, Asst. Prof.
B.S., Mansfield State College
M.A., Central Michigan University
ANN CLEARY, Asst. Prof.
A.B., Marywood College
M.S.T., SUNY at Binghamton
THADDEUS CZUPRYNA, Prof.
B.A., SUNY at Binghamton
M.S., Cornell University
M.S., Syracuse University
DANIEL W. DODWAY, Prof.
B.S., St. Lawrence University
M.S., SUNY at Albany
PAUL J. EARL, Assoc. Prof.
B.S., Wilkes College
M.A., Rutgers University
MORTON GOLDBERG, Prof.
B.A., SUNY at Binghamton
M.A., SUNY at Buffalo
CARMELITA KEYES, Asst. Prof.
B.A., University of Kansas
M.A.T., SUNY at Binghamton

DAVID MICHALAK, Tech. Asst. II
A.S., Broome Community College
B.S.M.E., Rochester Institute of
Technology
M.A.T., SUNY at Binghamton
JOSEPH F. MILENSKY, Prof.
B.A., SUNY at Binghamton
M.A., University of New Mexico
LUIS MORENO, Asst. Prof.
B.S., Rensselaer Polytechnic
Institute
M.S. in Statistics, SUNY
at Albany
PAUL O'HERON, Assoc. Prof.
A.A., A.A.S., Monroe Community
College
B.S., SUNY College at Fredonia
M.S., Michigan State University
RICHARD L. REMIZOWSKI, Asst. Prof.
A.A.S., Mohawk Valley Community
College
B.A., SUNY College at Oswego
M.A., SUNY at Buffalo
CHARLES RICKER, Prof.
B.A., Hartwick College
M.A., SUNY at Albany

Emeritus
GORDON DATES
IRVIN C. SIMSER

MECHANICAL ENGINEERING TECHNOLOGY

Appointment Pending for
Department Chairperson
HERBERT L. DURST, Prof.
B.S., Drexel Institute of Technology
BLAINE K. ELLIS, Prof.
A.A.S., Broome Community College
B.M.E., M.S., Rochester Institute
of Technology
GARY MOTT, Inst.
B.S.M.E., SUNY at Buffalo

GARY OSTRANDER, Assoc. Prof.
A.A.S., Broome Community College
B.S., SUNY College at Cortland
M.S., Rochester Institute of
Technology
DOUGLAS RITTENHOUSE, Asst. Prof.
Teaching Certification, University
of the State of New York
Emeritus
MARION A. FORBES

MEDICAL ASSISTANT

MARY E. SCHUM, Chairperson
B.Ed., SUNY College at Fredonia
M.S., St. Bonaventure University

TERESSA H. BURAN, Assoc. Prof.
B.A., Alfred University
M.S.T., SUNY at Binghamton
Emeritus
CLYDE CHAUNCEY

MEDICAL LABORATORY TECHNOLOGY

JULIA E. PEACOCK, Chairperson
B.S., Michigan State University
M.S., SUNY Upstate Medical Center

MAXIMILIAN D. BORSKI, Asst. Prof.
B.S., Southwest Missouri State
College
M.S., University of Missouri

MEDICAL RECORD TECHNOLOGY

MARY ROSATO, Chairperson
B.S., Mercy College
M.A., SUNY at Binghamton
R.R.A.

JANE HLOPKO, Inst.
A.A.S., Broome Community College
A.R.T.

NURSING

JANET WRIGHT, Chairperson
B.S., M.S.N., Syracuse University
DOROTHY DOANE, Instr.
B.S., Alfred University
FLORENCE EWANOW, Asst. Prof.
B.S., Keuka College
J. PATRICIA LEE, Assoc. Prof.
B.S., Keuka College
M.S., Syracuse University

BARBARA MARCKX, Assoc. Prof.
B.S.N., Georgetown University
M.S.N., University of Colorado
RUTHE B. O'BOYLE, Asst. Prof.
B.S., Syracuse University
MARY A. E. PRICE, Assoc. Prof.
B.S., Villanova University
M.S.N., Boston University
JACQUELINE M. SHRADER, Asst. Prof.
B.S.N., Niagara University
M.S.N., Syracuse University

OFFICE TECHNOLOGIES

EUGENE V. GIOVANNINI, Chairman
B.Ed., M.Ed., Bloomsburg University
ELIZABETH B. ALTENHOFEN, Asst.
Prof.
B.S., Hartwick College
JOAN BANDURCHIN, Asst. Prof.
A.A.S., Broome Community College
B.S., Kent State University
M.S., SUNY College of Technology
CHESTER J. BUGLIA, Assoc. Prof.
B.S., Pennsylvania State University
M.Ed., Bloomsburg State College

MARIE DAVENPORT, Assoc. Prof.
A.A.S., Broome Community College
B.S., M.S., SUNY at Albany
EVELYN A. KATUSAK, Prof.
B.S., M.S., SUNY at Albany
ESTHER SABOL, Tech. Asst.
Coordinator of Word Processing
Center/Model Office
A.A.S., Broome Community College
B.S., SUNY College of Technology

PARALEGAL ASSISTANT

See this heading under Adjunct Faculty

PHYSICAL EDUCATION

OZMUN G. WINTERS, Chairperson
B.A., Syracuse University
M.S., Ithaca College

EDWIN C. DAUB, Assoc. Prof.
B.S., M.S., SUNY College at Cortland
DUANE WHITTAKER, Asst. Prof.
B.S., SUNY College at Cortland

PHYSICAL PLANT

RALPH WALTER
Assistant to Vice President

PHYSICS

See Engineering Science and Physics

PLACEMENT

ANNE M. SCOTT, Director
B.S., SUNY College at Cortland
M.P.S., University of Colorado

LAWRENCE TRUILLO
Staff Assistant
A.A., Broome Community College
B.A., SUNY College at Oneonta

PLANNING

SARAH J. FRANKLAND, Director
B.S., Boston University
M.S.N., Boston College
LYNDA E. SPICKARD, Grantsperson
B.A., Colorado College
M.A., University of Colorado at
Boulder

ERIC E. BEAMISH
Director of Educational Technology
B.S., Concordia College
M.A., Ed.D., Columbia University

PUBLIC RELATIONS

See Community Relations

RADIOLOGIC TECHNOLOGY

NANCY BUTTON, Chairperson
R.T., Nesbitt Memorial Hospital
School of Radiologic Technology
B.A., Wilkes College
M.S., Marywood College

JANE DeMARIA, Instr.
A.A.S., Broome Community College
B.S., Medical College of Georgia
M.S., SUNY at Binghamton
BARBARA VALENTINO, Instr.
A.A.S., Broome Community College
B.P.S., SUNY Empire State College
M.S., SUNY at Binghamton

REGISTRAR'S OFFICE

REGISTRAR
Appointment Pending

ROSEMARY ZINNER
Assistant Registrar
A.A.S., Broome Community College
B.S., SUNY at Binghamton

SPECIAL CAREER PROGRAMS

FRANCIS J. SHORT, Chairperson
A.A., Broome Community College
B.A., SUNY College at Geneseo
M.S., SUNY at Albany

WILLIAM F. MICHALEK, Coordinator of
Criminal Justice Program
B.A., Valparaiso University
M.S., Arizona State University
Ph.D., Cornell University

STUDENT ACADEMIC ADVISEMENT CENTER

See this heading under Adjunct Faculty

STUDENT ACTIVITIES

R. BRUCE MacGREGOR, Director
B.Mus., Syracuse University
M.S., Ithaca College

STUDENT AFFAIRS

JOHN J. PIEROG
Vice-President
B.S., M.Ed., Plymouth State College
Ed.D., Nova University

JUDITH E. POTTS
Assistant to Vice-President
B.A., M.A., Syracuse University

TOOL AND DIE MAKING

See this heading under Adjunct Faculty

ADJUNCT FACULTY

The following taught part-time at the College
during the 1984-85 academic year:

ACADEMIC ADVISING

See Student Academic Advisement Center

ADMISSIONS

Anthony M. Sacco

AUDIO-VISUAL

Michelle Perricone

BIOLOGY

Judith Sullivan
Sandra Whittaker

BUSINESS

Annamary Allen
Jeannie Berkesse
Ronald C. Finch
Sally Gillespie
Scott Pakel
Sal Peretore

Edward Petras
George C. Shea
Richard Tucker
Raymond Van Ness
Dennis Walker
Harry M. Watson, Jr.

CAD/CAM CENTER
(Computer Aided Design/Computer Aided Manufacturing)

Jessie Browne

CHEMICAL ENGINEERING TECHNOLOGY
Richard Posner

James Fish
Robert Leon

CHILD CARE

Marilyn J. Schafer, Coordinator
Sonya Brown
Darlene Darrow

Diane Good
Laurie Henderson
Winifred McDuffie
Marion McPheeters
Barbara Reining

CIVIL ENGINEERING TECHNOLOGY
Donald F. Brown

Richard J. Polizatto

COMPUTER STUDIES

Robert Armitage
Madelyn Berkesse
Marcia Bernhardt
Jessie Brown
William Campoli
George Corbett
Lucia Davis
David Dodd
Yvonne George
Susan Gilbert
Beverly Hurlburt

Mary Insabella
Eric Masselle
Fiona McFadden
Alice McNeely
Linda Mesmer
Stephen Mills
James Mollen
Mark Poerio-Bierbaum
Charles Rogal
Cynthia Sailer
Gary Wood

CRIMINAL JUSTICE

Louis Crosetto
Paul Dinardo

Frederick Meagher
Stephen Vizvary

DENTAL HYGIENE

Kathleen Case, RDH
Kyle Donlon, RDH
Paula Fitch, RDH

Suzanne French
Karen Sheehan
Carole Stanley, RDH

DIETARY MANAGER

Lorraine B. Gula, RD, Coordinator
Judy Komarinetz, RD

Joanne Niziolek, RD
Joan Mastronardi, RD

ELECTRICAL ENGINEERING TECHNOLOGY

William S. George
Sherry E. Gruber

Arthur J. Meyers
Sam Mathias

ENGINEERING SCIENCE AND PHYSICS

Marilyn Akins
Robert Albert
Naomi Bloom

Rosann Rayome
Bruce Oldfield
Walter Wintsch

ENGLISH

Victoria Belenkaya
Katherine Buckley
Margaret Deys
Anita Doll
Michael Gee
Kathleen Greenman
Helen Kolias

James Lieberman
Margaret LoGalbo
David Maslar
Jerald Mirskin
Donald Phillips
Madeline Robinson
Gregory Saraceno

FIRE PROTECTION TECHNOLOGY

Anthony Winkler, Jr., Coordinator

HISTORY AND SOCIAL SCIENCES

Trevor Abrahams
Corrine Crandell
Carl Dassbach
John Dempsey
Kerrie Doyle

Lorenz Firsching
William Herrin
Thomas Pasquarello
Robert Shields
Michael Sullivan

HUMANITIES

Richard Barons
Alan Crabb
Dennis Curatolo
Martha Fenty
Suzanne Geoghegan
Lola Kaminsky

Martha Knowlton
Joan Koster
Helen Sacco
Carole Stanley
John Young

INDUSTRIAL SAFETY & OCCUPATIONAL HYGIENE

Leo Kranefuss

LEARNING SKILLS CENTER

Mary Lou Raykovicz

MATHEMATICS

Melanie Clark
Jane Colapietro
Linda Daly
Joan Dodway
Carol Fish
Michael Iannone
Sandra Kelley
Virginia Kilty
Elizabeth Klipsch

Patricia Livermore
John Nardocci
Patricia Schulte
Anke Willard
Mary Wolyniak
Ping Yen

MECHANICAL ENGINEERING TECHNOLOGY

John Bruce
Ronald Carrol
Laimons Drupa
Louis Evangelisti
David Hagerman
Edward Prybiski
Irvin Simser

William Stewart
Ralph Verrastro
Richard Vlasak
John Whittemore
Lowell Williams
Robert Zielewski

MEDICAL ASSISTANT

Lynn Augenstern

Charlotte Holdrege, ASCP

MEDICAL LABORATORY TECHNOLOGY

James Lockwood

Sandra Whittaker

NURSING

Michele Donato
Beverly Hugo
Claire Ligeikis
Jean Lubs

Margaret Manley
Marguerite McDonough
Mary Mihalko
Beverly Ochiai

OFFICE TECHNOLOGIES

Patricia Boyes
Robert Lane
Susan Morellino

Margaret Turna
Agatina Vailone

PARALEGAL ASSISTANT

Matthew Vitanza, Coordinator
Daniel Casella

Nelson Migdal
Michael Wright

PHYSICAL EDUCATION

Cheryl Brozost
Thomas Carter
Roselle Illsley

Nathaniel Jackson
Nancy Kendrot

RADIOLOGIC TECHNOLOGY

Dorothy Darrin, R.T. (R)
Linda Dean, R.T. (R)
Pamela Hoffman, R.T. (R)

Elizabeth Pell, R.T. (R)
Paula Ryan, R.T. (R)
Mardelle Vest, R.T. (R)

STUDENT ACADEMIC ADVISEMENT CENTER

Sharon Wapen, Coordinator
Douglas Garner

Margaret Pimpinella
Glen Wood

STUDENT AFFAIRS

Charles Hutchinson

TOOL AND DIE MAKING

William Decker
David Hagerman
Donald Scott
William Stewart
Lynn Stradley

Roy Taylor
Harry A. Thor
Larry Verhoeven
Billie Vest
Gary Wiesing

CLINICAL AFFILIATE FACULTY

MEDICAL ASSISTANT

Brenda Brink, C.M.A.
Patricia Corey, F.N.P.
M. Ellen Donovan
Kathy Frost
Bea Grace, R.N.
David Lashier
Judy Lynch, R.N., F.N.P.
Dawn McNeil, A.A.S.
Paula Molto, A.S., C.M.A.
Patricia Paden, A.S., C.M.A.

Pauline Patterson, L.P.N.
Jean Paul, L.P.N.
Christine Rittenberg, C.M.A.
Terry Thompson
Amy Traver, C.M.A.
Ron Weiler, R.N.
Paula Weingartner, A.S.S., C.M.A.
Louise Williams, L.P.N.
Karen Yanuzzi

MEDICAL LABORATORY TECHNOLOGY

Barbara Bagan, M.T. (ASCP)
Angelo Carro
Carla Chamberlain, M.T. (ASCP)
James Clements, B.S.
G.A. Fattal, M.D.
John Finn, M.T. (ASCP)
Susan Gaines
Anne Gilfillan, B.S., M.T., S.H. (ASCP)
Mary Greene, B.S., M.A.
Simon Hirsche, M.D.
Kenneth Hull, B.S.
Alzina Johnson, M.T. (ASCP)

Stanley Konopka, Ph.D.
Z.J. Kuczala, B.S.
James Lockwood, M.T. (ASCP)
John Miller, Ph.D.
Irene Moon, M.T. (ASCP)
Theresa Murphy
Linda Redmond, B.S., M.S., M.T. (ASCP)
Linda Runne
Evelyn Thomas, B.S.
Robert Tuggey, Ph.D.
Lyla Wolford, S.C. (ASCP), M.T. (ASCP)
John Walters, B.S.
Patricia Walsh, B.S., M.T. (ASCP)
Loren Wolsh, M.D.

MEDICAL RECORD TECHNOLOGY

Sue Bice, A.R.T., B.A.
V. Jane Casamento, A.R.T., B.S.
Dorothy Erney, R.R.A., B.S.
Margaret Gallagher, A.R.T.
Mary Jo Bowie, R.R.A., B.S., A.R.T., A.A.S.

Cathy Komblatt, A.R.T., A.A.S.
Marlene Okoniewski, A.R.T., A.A.S.
Sandra Thompson, A.R.T., A.A.S.
Uma Varma, A.R.T., A.A.S.
Mary Wargo, A.R.T., A.A.S.
Lorraine Wheeler, A.R.T., A.A.S.

CURRICULUM ADVISORY COMMITTEES

The College's career-oriented curriculums have advisory committees to help maintain an awareness of the changing skill and training needs in the particular fields; establish communication among the college, the community, employers and educational representatives; and advise the College about career curriculums on a continuing basis. These advisory committees are comprised of a cross-section of people involved in each field. Following is the make-up of the respective advisory committees:

BUSINESS AND OFFICE TECHNOLOGIES DIVISION

BUSINESS

EDWARD ANDREJKO
Binghamton Savings Bank
JOSEPH BALOK
General Electric
RONALD BARBER
Matco Electric Co.
DONALD BEHR
Great American Stores
FRANK BERRISH
IBM Credit Union
DAVID CAHILL
Prudential-Bache
FAYE CLAUS
Metrocenter
RUTH GDOVIN
Singer-Link Co.
EDWIN HOGG
Chase Lincoln First Bank

JOHN KANICK
Ketrick Insurance
JOANNE KOCAK
Tri-Cities Communication
ROBERT LINDSLEY
Security Mutual Life Insurance Co.
ANTHONY MAIONE
Vestal, N.Y.
RAYMOND MC CORMACK
WBNG-TV
JAMES MC COY
Number 5 Restaurant
BRIAN MC MAHON
McMahon & Blum Co.
SCOTT PAKEL
Raymond Corp.
VINCENT PASQUALE
State University of NY at Binghamton
DENNIS WALKER
Lauder & Lauder

OFFICE TECHNOLOGIES

DEBBIE DELUCIA
Binghamton Savings Bank
EVELYN HART
Singer-Link Co.
VIVIAN ROBILLOTTIO
Chernin & Gold, attorneys
BERNARD SETTA
General Electric

RUTH SMITH
WBNG-TV
ANDREA TOTMAN
IBM Corp. in Owego
KAREN TREICHLER
Singer-Link Co.

HEALTH SCIENCES DIVISION

DENTAL HYGIENE

THOMAS CARDOZA, D.D.S.
Periodontist
MARY FISHER
Dental Hygienist
ARLENE KONIUTO
Dental Hygienist
DAVID PAYNE, D.D.S.
Oral Surgeon
A.J. PERNA, D.D.S.
General Practice

LAWRENCE ROUFF, D.D.S.
Orthodontist
CAROLE STANLEY
Dental Hygienist
LINDA WHITE
Dental Hygienist

DIETARY MANAGER

LOIS BENTLAGE, RD
Consulting Dietician
Oak Hill Manor Nursing Home
Ithaca, NY

BETTY FIASCHI, CDA
Good Shephard Nursing Home
Binghamton, NY

JOSEPH GAY
Dean of Health Sciences
Broome Community College

JOAN M.L. KOCH, RD
Nutritional Sciences
Cornell University

JOAN MASTRONARDI, RD
Dietetic Department
Binghamton General Hospital

MARGARET SIMPSON, RD
Regional Director
N.Y. State Department of Health
Binghamton, NY

STUDENT, appointed annually

MEDICAL ASSISTANT

DR. BRUCE BOWLING
Endwell Primary Care
Affiliates
Broome Community College

LYNN AUGENSTERN
TERESSA BURAN
MARY SCHUM
MARY CUOMO
Pediatric Services
Wilson Memorial Hospital

M. ELLEN DONOVAN
Medical Assistant
Chenango Bridge Medical
Center

JOSEPH GAY
Dean of Health Sciences
Broome Community College

BEA GRACE
Endwell Primary Care
Affiliates

DR. MICHAEL LEWIS
Susquehanna Affiliates

KATHLEEN SPOLSKY
Medical Assistant

DR. FREDERICK WHITING
Binghamton, NY

STUDENT, appointed annually

MEDICAL LABORATORY TECHNOLOGY

MAXIMILLIAN BORSKI
Medical Laboratory Technology
Broome Community College

JOHN FINN
United Health Services

BREDAN FLYNN
Chemistry Dept.
Broome Community College

JOSEPH GAY
Dean of Health Sciences
Broome Community College

MARY GREEN
Lourdes Hospital

ROBERT LEVIN
Clinical Pathology Unit
Norwich-Eaton Pharmacal Co.
Norwich, NY

JULIA PEACOCK
Chairperson
Medical Laboratory Technology
Broome Community College

DAVID WALSH
Chairman, Biological Sciences
Broome Community College

JOHN WALTERS
United Health Services

DR. LOREN WOLSH, Chairman
United Health Services

STUDENT, appointed annually

MEDICAL RECORD TECHNOLOGY

V. JANE CASAMENTO, A.R.T.
Director, Medical Records
Chenango Memorial Hospital

DOROTHY ERNEY, R.R.A.
Director, Medical Records
Binghamton Psychiatric Center

JOSEPH K. GAY
Dean of Health Sciences
Broome Community College

CATHY KORNBLATT, A.R.T.
Director, Medical Records
Chenango Bridge Nursing Home

DR. ALFRED PETERSON
Chenango Bridge Medical Group

HAROLD SEIFERT
Vice-President of Finance
Our Lady of Lourdes Hospital

STUDENT, appointed annually

NURSING

RICHARD DeFEO
Guidance Counselor
Whitney Point High School

JOSEPH GAY
Dean, Health Sciences
Broome Community College

JO ANNE MANIAGO
Professor
Broome Community College

DENISE MURRAY
NYPENN

APRIL ROZBORIL
Vice-President for Nursing
United Health Services

JACQUELINE SCHRADER
Nursing Faculty
Broome Community College

WALTER STROLEY
Administrator
Willow Point Nursing Home

DIANE YUDIN
Graduate of BCC Nursing
Program

JANET WRIGHT
Chairperson, Nursing Dept.
Broome Community College

RADIOLOGIC TECHNOLOGY

ANDREW ADAMS, M.D.
Binghamton, NY
Medical Director of Curriculum
Binghamton General Hospital

Department of Radiology
FRANK EMICK, R.T.
DAVID LISI, M.D.
Broome Community College

NANCY BUTTON, R.T.
Education Director of
Curriculum

DOROTHY DARRIN, R.T.
LINDA DEAN, R.T.
JANE DEMARIA, R.T.
JOSEPH GAY, Dean of
Health Sciences

PAMELA HOFFMAN, R.T.
MARDELLE VEST, R.T.

STUDENTS, appointed annually

Our Lady of Lourdes Hospital
Department of Radiology
LEWIS DOSIK, M.D.
PHILIP FRANCIS, R.T.
PATRICIA KINNEY,
Supervisor
FRANKLIN MC SHANE, VP of
Clinical Services
Wilson Memorial Hospital

EDWIN LIS
Radiology Business Manager
QUIRINO WONG, M.D.
Dept. of Radiology
FRANCIS LETAVISH, R.T. (R)
Dept. of Radiology

TECHNOLOGY, ENGINEERING AND COMPUTING DIVISION

CHEMICAL ENGINEERING TECHNOLOGY

FEYYAZ BASKENT
Union Carbide Corp.

JAMES DORSEY
Eastman Kodak

DR. CARL ERNST
Anitec Image Corp.

BARBARA LASKY
NYS Electric and Gas

DR. LOU LIETO
Norwich-Eaton Pharmaceuticals

MICHAEL MC DONALD
Corning Glass Works

JOHN SUSKO
IBM Corp.

PATRICIA WEISLANDER
Sandia Corp.

DR. WILLIAM WITTOSCH
International Paper Co.

CIVIL ENGINEERING TECHNOLOGY

DAVIS BURRITT
President
Murray Walter, Inc.
FRANK W. CONNELL
President
McFarland Johnson Engineers,
Inc.
JAMES CONNOR
District Engineer
NYS Department of
Transportation
Binghamton, NY

WILLIAM LANE
William Lane General
Contractors
DENNIS T. O'DEA
NYSEG
GARY WOOD, P.E.
Empire Soils Investigation, Inc.
Groton, NY

COMPUTER STUDIES

JOSEPH BOYER
Security Mutual Life Insurance
GORDON BROWNLOW
Universal Instruments
THOMAS CARTER
General Electric
DAVID COPELAND
Digital Equipment Corp.
MICHAEL DAUGHERTY
Singer-Link Co.
ROBERT LESKO
Raymond Corp.

WILLIAM MC ARTHUR
Universal Instruments
HERMAN SCHMID
General Electric
HUGH SLAWSON
McFarland-Johnson Engineers,
Inc.
JOHN TORRES
Doron Precision Systems
PATRICK WALSH
IBM Corp.

ELECTRICAL ENGINEERING TECHNOLOGY

JOHN CZEBINIAK
Universal Instruments
JOHN EKSTROM
NYSEG
CRAIG HOFFMAN
Savin Corp.
ROBERT NEW
Singer-Link Co.
ROBERT O'CONNOR
General Electric
RICHARD PAINTER
Gould Computer Systems

ELDRED PAUFVE
Universal Instruments
ROBERT PIERDOMENICO
NYSEG
ROBERT ROSE
IBM Corp.
SAMUEL STOKES
General Electric
CHARLES TAYLOR
SUNY at Binghamton
JAMES WALKER
Doron Precision Systems
JACK WHITE
IBM Corp.
GEORGE YEZZI
NYSEG

MECHANICAL ENGINEERING TECHNOLOGY

FRED BARTHOLOMEW
Market Services Manager
Raymond Corp.
LOUIS EVANGELISTI
Supervisor, Drafting Standards
Singer-Link Co.
PETER MAJESTIC
Research & Development
Corning Glass

DAVID MERITHEW
Manager, Mechanical Design
Universal Instruments
RAYMOND PERINE
Vice-President
NYSEG
HERBERT SWAN
Retired
IBM

TOOL & DIE PROGRAM

LEWIS CLARK
E.H. Titchener & Co.
CHET LENCESKI
Broome BOCES
JIM LOTT
IBM Corp.

ART MARKEY
Stow Mfg. Co.
SY MATHEY
Electro Form Corp.
JAMES MC ELHATTEN
Broome BOCES
DINO SPAGNOLLI
Universal Instruments
ROY TAYLOR
Singer-Link Co.

LIBERAL AND GENERAL STUDIES DIVISION

INTERIOR DESIGN

ANNE COTTEN
Interior designer and-
Broome Community College
Adjunct faculty
ROBERT KELLER
Assistant Professor, Art
Broome Community College
CORINNE MAXON
Professor, Home Economics
SUNY College at Oneonta

BEVERLY MC LEAN
Designer
LILLIAN NEZELEK
Guidance Coordinator
Binghamton High School

SPECIAL CAREER PROGRAMS

CHILD CARE

HELEN BUEMI
Day Nursery Association
LIBBY HOBART
Broome Cooperative Extension
EUNICE MILLER
First Methodist Pre-School
Endicott, NY
BCC Student
to be named

MARILYN SCHAFER
Coordinator, Child Care
Broome Community College
FRANCIS SHORT
Department chairman
Broome Community College
LOIS WESTGATE
Riverside Drive Nursery

CRIMINAL JUSTICE

ROBERT KENT
Broome County Parole Board
WILLIAM MICHALEK
Coordinator, Criminal Justice
Broome Community College
HON. PATRICK MONSERRATE
Broome County Judge

DAVID NEMEC
Broome County Probation
JOHN SEJAN
Binghamton Chief of Police
FRANCIS SHORT
Department chairman
Broome Community College

FIRE PROTECTION TECHNOLOGY

NANCY CAMPBELL
BCC alumna
DAVID DARLING
JEROME FIVES
IBM Corp. in Endicott

FRANCIS SHORT
Department chairman
Broome Community College
ANTHONY WINKLER
1st Assistant Fire Chief
Binghamton, NY

INDUSTRIAL SAFETY & OCCUPATIONAL HYGIENE

LEO KRANEFUSS
IBM Corp. in Endicott
DAVID MUMMERT
Versar, Inc.
ANDRIS OLMETTI
Associated Building Contractors
DONALD PIXLEY
Lourdes Hospital

STANLEY POPLIERSKI
Aetna Life & Casualty
FRANCIS SHORT
Department chairman
Broome Community College
MACARY TARNOFF
Columbian Mutual Life
Insurance
VINCENT TAYLOR
NYSEG

PARALEGAL ASSISTANT

JON BLECHMAN
Attorney at Law
JOAN DEBRUIN
Hinman, Howard & Kattel,
attorneys
IDA GIALANELLA
Surrogate Court
SALLY GILLESPIE
Labor-Management Mediator
THOMAS HULL
Attorney at Law
HON. JOHN HILLIS
Binghamton City Court Judge
THOMAS HULL
Attorney at Law

BEVERLY LEGOS
Court of Claims
MADELINE NEMCEK
Scanlon & Vetrano, attorneys
TANYA SCHMELER
Columbian Mutual Life
Insurance
FRANCIS SHORT
Department chairman
Broome Community College
MATTHEW VITANZA
Attorney at Law
Coordinator, Paralegal Asst.
Broome Community College

OTHER

VOCATIONAL EDUCATION

M. JEANNE ALLISON
Registered Occupational
Therapist
Wilson Memorial Hospital
(Representing Labor)
PETER AUSTIN
Coldwell Banker Real Estate
(Representing Business)
IDA GIALANELLA
Deputy Clerk
Broome County Surrogate
Court
(Representing Labor)
VIOLET MC HALE
Corporate Secretary
Binghamton Savings Bank
(Representing Business/Labor)

ROBERT NEW
Senior Member Technical Staff
Singer-Link Co.
(Representing Industry)
DINO SPAGNOLI
Personnel Manager
Universal Instruments
(Member at Large)
GERALD TAYLOR
Principal
Chenango Forks Central School
(Representing Secondary
Schools)

STATE UNIVERSITY OF NEW YORK (SUNY)

CLIFTON R. WHARTON, JR., Chancellor

Broome Community College is one of the 64 colleges that comprises the State University of New York (SUNY), which was established by the State Legislature in 1948. The 64 units include 30 locally-sponsored two-year community colleges like Broome.

The University's 64 geographically dispersed campuses bring educational opportunities within commuting distance of virtually all New York citizens. In academic 1984-85 more than 370,000 students enrolled in its classrooms or pursued study at home, at their own pace, through such innovative institutions as Empire State college, a campus without walls. Of the 370,000, about 30 percent are 24 years of age or older.

The University is uniquely organized into a system comprised of:

Four University centers, two medical centers, 12 colleges of arts and sciences, a non-residential college, four specialized colleges, five statutory colleges, six agricultural and technical colleges, and 30 locally-sponsored community colleges.

In addition to baccalaureate studies, 12 of the senior campuses offer graduate study at the doctoral level, and 22 at the master's level.

The two-year colleges offer associate degree opportunities in a wide range of technical areas. They also provide transfer programs for students wishing to continue to the baccalaureate degree. In the 1984-85 college year, the community colleges enrolled about 180,000. This number is about equally divided into full-time and part-time categories. Ten Educational Opportunity Centers serve the educationally deprived by upgrading occupational skills for more gainful employment and identifying students with college potential to prepare them for enrollment in the state's public and private colleges.

State University is governed by a Board of Trustees, appointed by the Governor, which determines the policies to be followed by the 34 State-supported campuses. The 30 community colleges operate under the program of State University and have their own local boards of trustees. SUNY's motto is "To Learn-To Search-To Serve," which emphasizes the University's three-fold mission of education, research and public service.

State University awarded a degree to its one millionth graduate in the spring of 1985. The majority of them are pursuing their careers in communities across the state.

COLLEGES OF THE STATE UNIVERSITY OF NEW YORK (SUNY)

COMMUNITY COLLEGES

(Locally-sponsored, two-year colleges under the program of State University)

Adirondack Community College at Glens Falls
 Broome Community College at Binghamton
 Cayuga County Community College at Auburn
 Clinton Community College at Plattsburgh
 Columbia-Greene Community College at Hudson
 Community College of the Finger Lakes at Canandaigua
 Corning Community College at Corning
 Dutchess Community College at Poughkeepsie
 Erie Community College at Williamsville, Buffalo, Orchard Park
 †Fashion Institute of Technology at New York City
 Fulton-Montgomery Community College at Johnstown
 Genesee Community College at Batavia
 Herkimer County Community College at Herkimer
 Hudson Valley Community College at Troy
 Jamestown Community College at Jamestown
 Jefferson Community College at Watertown
 Mohawk Valley Community College at Utica
 Monroe Community College at Rochester
 Nassau Community College at Garden City
 Niagara County Community College at Sanborn
 North Country Community College at Saranac Lake
 Onondaga Community College at Syracuse
 Orange County Community College at Middletown
 Rockland Community College at Suffern
 Schenectady County Community College at Schenectady
 Suffolk County Community College at Selden, Riverhead, Brentwood
 Sullivan County Community College at Loch Sheldrake
 Tompkins Cortland Community College at Dryden
 Ulster County Community College at Stone Bridge
 Westchester Community College at Valhalla

† While authorized to offer such baccalaureate and master's degree programs as may be approved pursuant to the provisions of the Master Plan, in addition to the associate degree, FIT is financed and administered in the manner provided for community colleges.

STATE-OPERATED COLLEGES

UNIVERSITY CENTERS

State University at Albany
 State University at Binghamton
 State University at Buffalo
 State University at Stony Brook

COLLEGE OF ARTS AND SCIENCE

College at Brockport
 College at Buffalo
 College at Cortland
 Empire State College
 College at Fredonia
 College at Geneseo
 College at New Paltz
 College at Old Westbury
 College at Oneonta
 College at Oswego
 College at Plattsburgh
 College at Potsdam
 College at Purchase

SPECIALIZED COLLEGES

College of Environmental Science and Forestry at Syracuse
 Maritime College at Fort Schuyler
 College of Technology at Utica/Rome
 †Fashion Institute of Technology

*STATUTORY COLLEGES

College of Agriculture and Life Sciences at Cornell University
 College of Ceramics at Alfred University
 College of Human Ecology at Cornell University
 School of Industrial and Labor Relations at Cornell University
 College of Veterinary Medicine at Cornell University

* These operate as "contract colleges" on the campuses of private universities.

† While authorized to offer such baccalaureate and master's degree programs as may be approved pursuant to the provisions of the Master Plan, in addition to the associate degree, FIT is financed and administered in the manner provided for community colleges.

COLLEGES AND CENTERS FOR THE HEALTH SCIENCES

Health Sciences Center at Buffalo
 University Center
 Health Sciences Center at
 Stony Brook University Center
 Downstate Medical Center at
 Brooklyn
 Upstate Medical Center at
 Syracuse
 College of Optometry at New York
 City

AGRICULTURAL AND TECHNICAL COLLEGES

College at Alfred
 College at Canton
 College at Cobleskill
 College at Delhi
 College at Farmingdale
 College at Morrisville

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COLLEGE CALENDAR FOR 1985-86

FALL SEMESTER 1985

Registration	August 19-23 (Mon-Fri)
Classes Begin	August 26 (Monday)
Last Day to Add Courses	August 30 (Friday)
*Last Day for 100% Tuition/Fee Refund	August 30 (Friday)
Labor Day (No Classes)	September 2 (Monday)
*Last Day for 50% Tuition/Fee Refund	September 6 (Friday)
*Last Day for 25% Tuition/Fee Refunds	September 13 (Friday)
Mid Semester Break (No Classes)	October 14-15 (Mon-Tues)
Mid-Term Grades Due	October 23 (Wednesday)
Thanksgiving Recess (No Classes)	November 27-December 1 (W-Sun)
Last Day of Classes	December 16 (Monday)
Examination Period	December 17-20 (Tues-Fri)
Grades Due	December 23 (Monday)

SPRING SEMESTER 1986

Registration	January 13-17 (Mon-Fri)
Classes Begin	January 20 (Monday)
Last Day to Add Courses	January 24 (Friday)
*Last Day for 100% Tuition/Fee Refund	January 24 (Friday)
*Last Day for 50% Tuition/Fee Refund	January 31 (Friday)
*Last Day for 25% Tuition/Fee Refund	February 7 (Friday)
Mid Semester Break (No Classes)	March 3 (Monday)
Mid-Term Grades Due	March 17 (Monday)
Spring Break (No Classes)	March 31-April 6 (Mon-Sun)
†Convocation Day	To Be Announced
Last Day of Classes	May 13 (Tuesday)
Examination Period	May 14 (Wed-Sat)
Grades Due	May 20 (Tuesday)
Graduation	May 30 (Friday)

SUMMER 1986

Term 1	May 27-July 3
Term 2	June 23-August 15
Term 3	July 14-August 22

- * Registrar's Office must be notified by this date. Students with classes only on Saturdays will have until 12 noon on the subsequent Monday to notify the Registrar's Office on withdrawal and still qualify for the appropriate tuition/fee refund.

† Whichever day of week Convocation Day is scheduled, that day's classes will be held on May 13.

Date: _____

S.S. # _____

Name: _____

Address _____

City _____ State _____

Zip _____ Phone: () _____

H.S. Attended: _____

Graduation (Mo./Yr.) _____

Any College Attended? If so, how many credits and at what colleges? _____

Please identify your curriculum interests:

Business

- ☐ Accounting
- ☐ Accounting/Banking Emphasis
- ☐ Business Administration
- ☐ Management
- ☐ Marketing

Computer Studies

- ☐ Computer Science
- ☐ Computer Technology
- ☐ Data Processing

Health Sciences

- ☐ Dental Hygiene
- ☐ Medical Assistant
- ☐ Medical Lab Technology
- ☐ Medical Record Technology
- ☐ Nursing
- ☐ Radiologic Technology (X-Ray)

Liberal Arts

- ☐ Liberal Arts (A.A.) Majors: Humanities, Social Sciences, Mathematics; Professions: Law, Teaching, Public Service (Transfer)
- ☐ Liberal Arts (A.S.) Majors: Biology, Chemistry, Physics; Professions: Medicine, Dentistry, Pharmacy, Physical Therapy (Transfer)
- ☐ Liberal Arts/Early Childhood
- ☐ Liberal Arts/Criminal Justice
- ☐ Liberal Arts/Pre Forestry
- ☐ Liberal Arts/Mental Health

Check the information you would like to receive:

- ☐ Application
- ☐ College Catalog
- ☐ Programs
- ☐ Cross Registration
- ☐ SUNY Binghamton
- ☐ Keystone Junior College
- ☐ Developmental Studies
- ☐ Early Admissions for High School Juniors
- ☐ Education Opportunity Program (EOP)
- ☐ Financial Aid/Scholarship Info.
- ☐ General Information
- ☐ Non High School Graduate Program
- ☐ Sports/Club Info. —Please Identify Summer School Info.
- ☐ Testing and College Orientation Info.



Date information sent: _____
1985

Date: _____

S.S. # _____

Name: _____

Address _____

City _____ State _____

Zip _____ Phone: () _____

H.S. Attended: _____

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- ☐ Liberal Arts/Early Childhood
- ☐ Liberal Arts/Criminal Justice
- ☐ Liberal Arts/Pre Forestry
- ☐ Liberal Arts/Mental Health



Date information sent: _____
1985

Science and Engineering Technology

- ☐ Chemical Engineering Technology
- ☐ Civil Engineering Technology
- ☐ Electrical Engineering Technology
- ☐ Engineering Science
- ☐ Mechanical Engineering Technology

Office Technologies

- ☐ Secretarial Executive
- ☐ Sec/General Office (Certificate)
- ☐ Sec/Office Services Assistant
- ☐ Sec/Word Processing

Special Career Programs

- ☐ Early Childhood
- ☐ Criminal Justice
- ☐ Dietary Manager (Certificate)
- ☐ Fire Protection Technology
- ☐ Individual Studies (A.S.) (Transfer)
- ☐ Individual Studies (A.A.S.) (Job Oriented)
- ☐ Interior Design (Certificate)
- ☐ Paralegal Assistant
- ☐ One-Plus-One Programs
- ☐ Paul Smith's College
- ☐ Tool and Die Making (A.O.S.)

Science and Engineering Technology

- ☐ Chemical Engineering Technology
- ☐ Civil Engineering Technology
- ☐ Electrical Engineering Technology
- ☐ Engineering Science
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- ☐ One-Plus-One Programs
- ☐ Paul Smith's College
- ☐ Tool and Die Making (A.O.S.)

MAP OF THE CAMPUS

1. TITCHENER HALL

Engineering Science and Physics
Liberal Arts
Mathematics
Computer Studies

2. WALES BUILDING

Admissions Office
Administrative Offices
Alumni Association
Center for Community Education
Counseling and Student Development Center
Educational Technology
Finance Office
Financial Aid
BCC Foundation
Health Service
Registrar's Office
Public Relations Office
Student Affairs Office

3. SCIENCE BUILDING

Chemical Technology
Dental Hygiene

4. ELECTRICAL BUILDING

Electrical Technology

5. STUDENT CENTER

Book Store
Cafeteria
Gymnasium
Little Theater
Physical Education

6. MAINTENANCE BUILDING

7. THE UNION

Housing
Student Activities
Student Lounge

8. MECHANICAL BUILDING

Civil Technology
Mechanical Technology
Special Career Programs

9. CECIL C. TYRRELL LEARNING RESOURCES CENTER

Audio-Visual
Developmental Centers
Mathematics
Reading and Study Skills
Writing
Educational Opportunity Program
Library
Science Learning Center

10. BUSINESS BUILDING

Accounting and Business Administration
Computer Center
Marketing
Medical Assistant
Medical Record Technology
Radiologic Technology
Secretarial Sciences

11. FACULTY OFFICES

12. 901 FRONT STREET

Biological Sciences
Medical Laboratory Technology
Nursing

13. "ALMS HOUSE" BUILDING

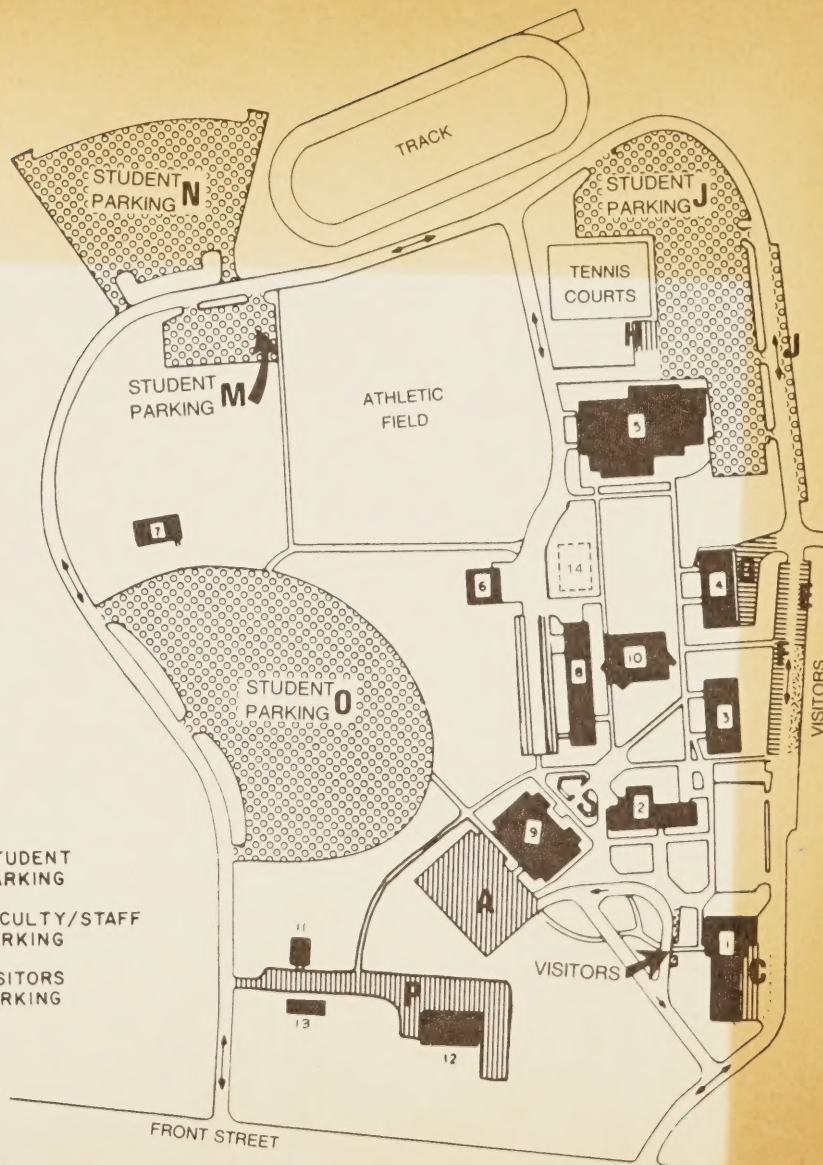
Art Studio

14. APPLIED TECHNOLOGY BLDG.

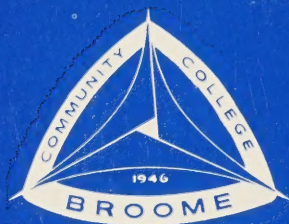
Under Construction

NIMMONSBURG CENTER

Classes are also held at the Nimmonsburg Center, one mile north of the campus on Front Street.



Partners in Progress . . .



**Broome
Community College**



**State University
of New York (SUNY)**



**Broome County
(College Sponsor)**